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ABSTRACT

The Milwaukee Bilingual Education Program, a five-year pilot project, ended its fourth year in June, 1973. The program provided a Spanish/English bilingual/bicultural curriculum taught by a bilingual staff of Spanish-American heritage. Both Spanish and English were used for instruction in order that pupils might demonstrate grade-level academic achievement in both languages by the end of the sixth grade. In the secondary program, English reading was emphasized as an aid to school achievement; courses were developed which emphasized the Latin-American experience in United States history and contemporary national and community life. From K-12, students learned about the holidays, food, literature, music, and expressions of Spanish-America and the United States. (Author/NE)

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BILINGUAL EDUCATION PROGRAM

EVALUATION REPORT
1972-1973

DIVISION OF PLANNING AND
LONG-RANGE DEVELOPMENT

DEPARTMENT OF EDUCATIONAL RESEARCH
AND PROGRAM ASSESSMENT

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The evaluation reported herein was performed pursuant to Project Number OEG-0-9-590262-3470(280) funded under Title VII of the Elementary and Secondary Education Act and Project Number 30-138 funded under Title I of the Elementary and Secondary Education Act.

ABSTRACT

The Milwaukee Bilingual Education Program, a five-year pilot project funded by ESEA Titles I and VII and the Milwaukee Public Schools, ended its fourth year in June, 1973. The program provided a Spanish/English bilingual/bicultural curriculum taught by a bilingual staff of Spanish-American heritage. Both Spanish and English were used for instruction in order that pupils might demonstrate grade-level academic achievement in both languages by the end of sixth grade. In the secondary program, English reading was emphasized as an aid to school achievement; courses were developed which emphasized the Latin-American experience in the history of the United States and in contemporary national and community life. From K to 12, students learned about the holidays, foods, literature, music, and expressions of Spanish-America and the United States.

At Vieau School, the program was expanded by one grade at the upper level to serve kindergarten through fourth grade. Pupils were enrolled by their parents. At the secondary level, students could elect bilingual reading and social studies classes at Lincoln Junior-Senior High School and South Division High School. The latter school also offered bilingual sociology and bilingual economics. Bilingual students' advisors assisted secondary students with school and home problems. A community liaison person linked the project schools with homes and organizations. Materials previously developed by staff were refined and new products created to meet the needs of the unique curricula.

Primary/Elementary Program

Objectives related to the academic goals of grade-level achievement by the

end of grade six were evaluated by comparing achievement on standardized tests of program pupils with similar non-program pupils. Spanish language arts were assessed according to achievement gains. The major findings were:

Kindergarten

Pupils in a bilingual program kindergarten were better prepared for first-grade work than similar pupils in regular half-day kindergartens. This difference occurred for both a half-day and full-day bilingual kindergarten program. Bilingual kindergarten and comparison kindergarten pupils at Vieau School started at similar levels and made similar gains in general concepts of space, time, and quantity.

Primary (Grades One, Two, and Three)

In general, Bilingual Program primary pupils scored lower than comparison groups on tests of English reading. This outcome might be expected because of the demands on pupils and staff of a bilingual curriculum.

Pupils in the Bilingual Program were able to comprehend Spanish and to do well on a Level 1 test of reading by the end of third grade. Oral Spanish improved, but there was a tendency to stray from standard Spanish to a Spanish/English mixture. Mathematics was a weak area. Bilingual groups scored below comparison groups at the same school at all grades.

Elementary

By the end of the fourth grade, the Bilingual Program group equalled its comparison group in English comprehension and reading and excelled in mathematics. Achievement in Spanish reading increased markedly since last year. Scores on a test of oral Spanish increased, although Spanish conversation tended to become Anglicized.

Secondary

At South Division High School, beginning readers of English averaged an 11-month gain in vocabulary and comprehension. Those who worked to improve skills averaged a five-month gain to grade equivalents of 7.9 (comprehension) and 8.4 (vocabulary) on national norms for a junior-high level test. Students were concerned about their future careers. The numbers of Spanish-American graduates increased. A tutorial program assisted students with academic subjects.

At Lincoln High School, pupils demonstrated a new belief in their ability to achieve. The staff urged expansion of the program.

Parents

Spanish-American parents whose children attended and left South Division High School since 1969 were queried about the Bilingual Program. The pro-

gram was endorsed by a majority of parents, whether or not their children had participated.

Steps were taken to organize parent advisory groups at each Title VII school, each to be represented on the Bilingual Advisory Committee.

Program as Model

Five elementary schools, one junior high, and two high schools planned to incorporate bilingual components according to their needs. These new programs, requested by the community and supported by the Milwaukee Public Schools, drew upon the methods and materials developed by Bilingual Program personnel.

Components of the Milwaukee program have also been adopted by schools in other cities and states.

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MILWAUKEE PUBLIC SCHOOLS
Milwaukee, Wisconsin

BILINGUAL EDUCATION PROGRAM

EVALUATION REPORT
1972 - 1973

Division of Planning and
Long-Range Development

Department of Educational Research
and Program Assessment

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INTRODUCTION

This is a report on the fourth year of the Milwaukee Bilingual Education Program, a five-year pilot project supported by ESEA Title VII, ESEA Title I, and the Milwaukee Public Schools. The project was initiated in 1969 by the Milwaukee Public Schools to provide a bilingual curriculum for schools with increasing Spanish-American populations. Both Spanish and English were used as languages of instruction by a Spanish-American staff. Latin-American culture was emphasized. As the Milwaukee project was one of the original bilingual programs, it has been necessary to develop and modify methods, materials, training programs, and assessment techniques. The program has become a model in that others in the city, state, and nation have adapted successful components.

Background

Although Spanish-Americans (persons whose heritage is Central American, South American, Puerto Rican, Cuban, or Spanish) had been part of the ethnic mix in Milwaukee for more than half a century, the majority had been unwilling or unable to relinquish their identity to the "melting pot". The original settlers were Mexican laborers recruited by machine industries following the first World War. The 1930 Census reported over 1,400 Mexican persons in Milwaukee, 71% of whom were foreign born. They settled in the south side industrial valley, an area called "Walker's Point". In the 1950's, plants and foundries north of the valley recruited Puerto Ricans, who resided near their work in an area known as "Juneautown". Since then, there has been a steady influx of

migrant workers who settled in Milwaukee after summers in Wisconsin fields and canneries. These people are Texans of Mexican heritage, many of whose forefathers had lived in the southwest when it was part of Mexico prior to the formation of the Republic of Texas in 1835. Additional Mexicans and Puerto Ricans have arrived also, along with a small number of Cuban refugees. The 1970 Census listed 22,113 persons of Spanish origin or descent in the City of Milwaukee. The majority are clustered in the two decaying neighborhoods, Juneautown and Walker's Point[1]. These areas are identified in Figure 1, a map of the City of Milwaukee.

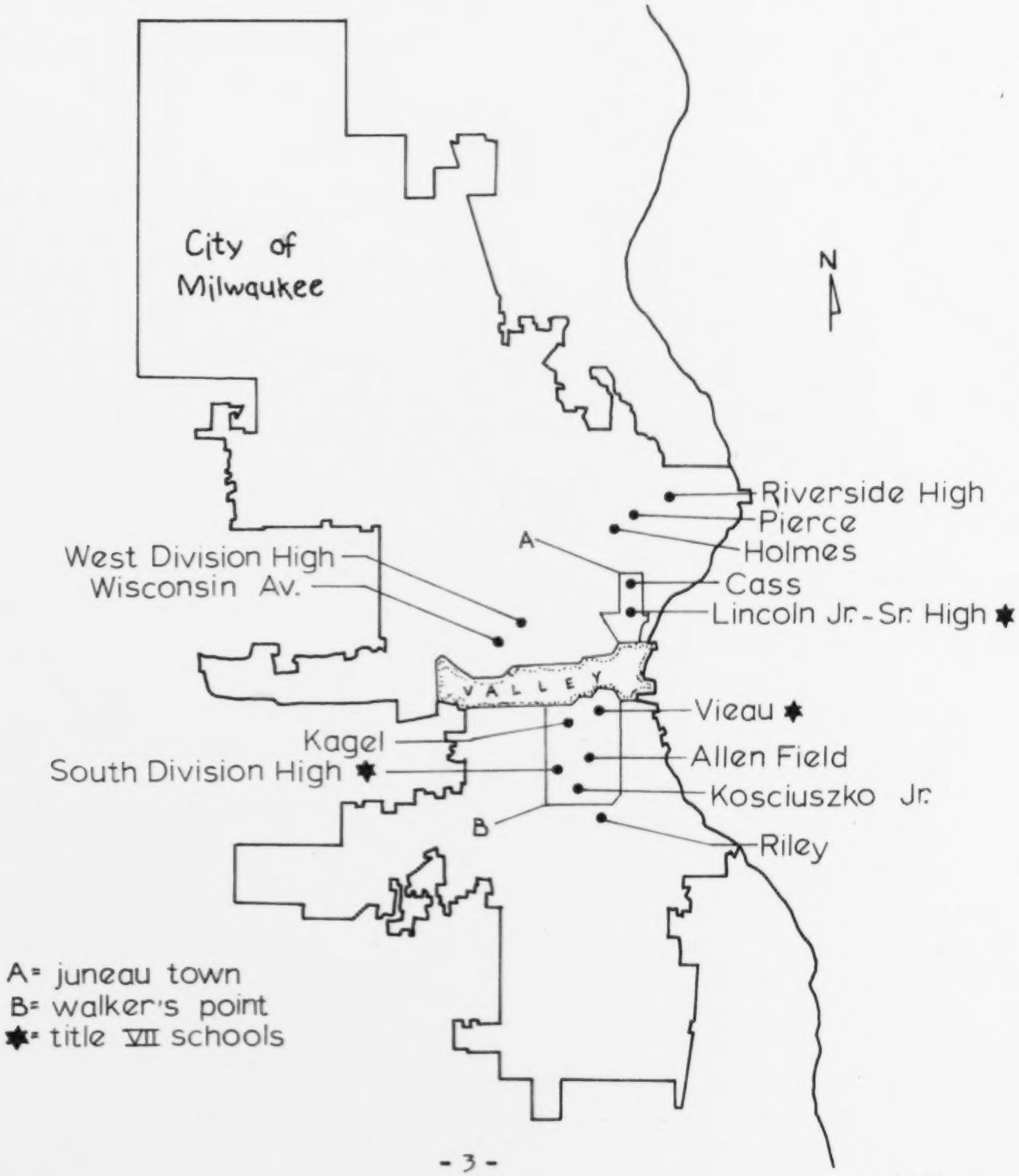
School adjustment is not much of a problem to many second-generation Milwaukee descendants of the early settlers, who have become "Americanized". However, most newly-arrived and first-generation Milwaukee Spanish-American pupils have been characterized by low achievement, a high drop-out rate, and absenteeism. Differences in language and culture have been the main determinants of this unfortunate record. A culture has been defined as a group of people having a common language, diet, costuming, socialization patterns, and set of ethics. The Latin-American culture differs from that of the United States majority in each of these aspects. This difference makes life difficult for a Spanish-American child in an ordinary classroom because:

-- the bilingual pupil often has a poor understanding of English.

-- monolingual Spanish-speaking pupils are unable to communicate or to comprehend in the classroom.

[1] Detailed information on Juneautown and Walker's Point is in Appendix A.

FIG. 1 LOCATION OF SCHOOLS HAVING BILINGUAL PROGRAMS



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-- pupils from migrant families lead an itinerant life which interrupts schooling and maintains their academic performance below grade level.

-- low educational and socio-economic status restricts experience in home and community so that basic skills have not been developed.

-- the non-recognition of Spanish cultural values by the majority society results in misinterpretation of much pupil behavior.

Congresssional sponsorship of bilingual education has been an effort to guarantee membership in the United States mainstream, while encouraging the cultivation of the mother tongue and retention of cultural heritage. The exchange of the "melting pot" concept for cultural pluralism means, among other things, that:

-- the child's first language, English or other, is used in the classroom.

-- the pupil will also learn to comprehend, speak, read, and write a second language, English or other.

Within these broad bounds, the Milwaukee Bilingual Education Program has developed methods intended to elevate achievement, extend educational opportunity, and promote cultural pride for Spanish-American pupils.

Schools, grade levels, population, program components, and budgets for each year are charted in Table 1. Note that Bruce-Guadalupe Community School participated in the program through the 1970-1971 school year. The usual one teacher per classroom has been funded by the Milwaukee Public Schools, and additional personnel and materials by ESEA Titles I and VII. As the program has expanded vertically, the Milwaukee Public Schools has assumed funding of initial components. In 1972-1973, ESEA Titles I and VII funds supported grades two to four at Vieau, the Bilingual Reading Center at South Division, and teacher training. Bilingual curriculum materials have been developed by the supervisory and teaching staffs. The program is guided by goals which represent a consensus of

TABLE 1

SCHOOLS, PROGRAM COMPONENTS, POPULATION, AND BUDGET
BILINGUAL EDUCATION PROGRAM, 1969-1973

School Year	School	Grade Level	Program Components	Number of Students	Number of Professional School Staff	Number of Non-Professional School Staff	Budget: Title VII	Budget: Title I	Budget: Local	Budget: Total
1969-1970	Bruce-Guadalupe	1-2	Bilingual curriculum with cultural emphasis	30	2.5	2	$ 45,256	$ 26,130	$53,000	$ 24,[illegible]
	Vieau	K-1	Bilingual curriculum with cultural emphasis	41	2	2				
	South	10-12	Bilingual Reading, Semester 2 Bilingual Student Advisor Hispano-American Culture, Language, and History	47	0.5 (Sem 1) 1.5 (Sem 2)	1				
	Lincoln	7-12	Bilingual Student Advisor Hispano-American Culture, Language, and History	46 164	0.5 5	1 6				
1970-1971	Bruce-Guadalupe	1-3	Team teacher added	59	4	3	$130,118	$ 85,546	$43,000	$278,[illegible]
	Vieau	K-2	Team teacher added Spanish Curriculum Development Center field testing started Community liaison added	107	4	3				
	South	10-12	Bilingual U.S. History added	131	2	2				
	Lincoln	7-12	Bilingual U.S. History and Bilingual Reading added	62 359	2 12	1 9				
1971-1972	Vieau	K-3	Bilingual Resource Teacher added Second team teacher added Kindergarten extended to full day Personal Economics and Sociology added	125	7	4	$173,534	$ 97,208	$ 0,000	$340,[illegible]
	South	10-12	Second student advisor added	136	2.4	2				
	Lincoln	7-12	Only Reading and Student Advisor	21 282	1 10.4	1.5 .5				
1972-1973	Vieau	K-4	Bilingual Reading Teacher added	129	9	5	$140,517	$105,812	$79,300	$325,629
	South	10-12	Hispano-Urban Setting, Guidance, and Tutorial Program added	155	2.2	3				
	Lincoln	7-12	U.S. History and Hispano-American Culture, Language, and History reinstated Second Student Advisor added	47 351	2 13.2	1 10				

school/community aims. Curriculum objectives were shaped and modified by program and supervisory staff.

Evaluations for the initial three funding years, 1969-1972, were linked to behavioral objectives which served as the bases for curricula. 1969-1970 results were reported as baseline data. 1971-1972 and 1972-1973 evaluation reports indicated proportions of pupils who achieved criterion levels of performance on revised objectives.

Over the past three years, trends pertaining to the four evaluation questions have emerged from the data. Except in measures of speaking and reading skills, evaluation has been in the child's dominant language, Spanish or English. In this way, language has been minimized as a variable in the evaluation of academic content. Data indicate that:

-- pupils from Spanish-speaking homes enter school with initial deficits in basic concepts related to school work (e.g., ability to count to five, comprehension of concepts related to space and time such as "top" and "after"). This lag has been interpreted by the Spanish-American staff as an indication of a cultural difference in preschool child rearing. During the course of the all-day kindergarten program, the gap is narrowed sufficiently to qualify most of these pupils for first-grade work.

-- achievement of the Bilingual Program is lower than regular classes at first- and second-grade levels. In the Bilingual Program, subject content, except reading, is presented in both English and Spanish.

-- by the end of the third grade, Bilingual Program pupils showed achievement equal to or greater than those in regular classes in English comprehension, English reading, and mathematics. In addition, they had acquired second language skills.

-- additional classroom personnel are required to handle ability groups taught in two languages.

-- instruction in reading in the second language should be delayed until the pupil reads fluently in his first language. Attempting to learn initial reading skills in two languages results in confusion and inability to integrate reading skills into a language system.

-- comprehension and speaking skills in a second language can be developed

incidentally with no apparent interference with other learning.

-- students in the secondary Bilingual Program improve their English reading skills, improve communication skills in both English and Spanish, develop cultural pride, and receive counseling support for continuing education.

The developing Milwaukee Bilingual Program has served as a model for others in the city and the nation. More than the usual amount of detail and descriptive information is included in this report as an aid to those who may wish to learn something of the processes of bilingual education and its evaluation. Appendix B contains descriptions by Bilingual Program and comparison classroom teachers of their methods, materials, evaluation procedures, and problem areas. Some familiarity with these descriptions would furnish useful background for the "Findings" section of this report.

At the end of this five-year pilot project, a longitudinal study will, hopefully, provide data which will assist in determing the future direction of bilingual programming. The questions we wish to answer are:

1. Does instruction in the dominant language facilitate the learning of school-related skills for Spanish-speaking pupils?

2. Does a program which emphasizes Latin-American culture improve the self-concept, learning set, and, thereby, the achievement of pupils of Latin-American heritage?

3. Does a Spanish-American staff improve the self-concept, learning set, and, thereby, the achievement of pupils of Latin-American heritage?

4. Is it possible for pupils to learn the academic curriculum in two languages and attain grade-level academic proficiency by the end of grade six?

1972-1973 PROGRAM DESIGN

Components which were added to the program may be found in Table 1. In general, it was expanded by one elementary grade level to provide for the progression of pupils and enriched according to the needs of the secondary schools. These additions required development of new bilingual curricula as well as ongoing refinement of prior program components.

Greater parent involvement was encouraged by the establishment of a parent advisory committee at each program school. The committees met with the school administrators and bilingual staff members at Vieau and South Division High School to discuss program progress and problems. Two delegates were elected from each school committee and two high school student representatives to serve on the Central Community Bilingual Advisory Committee. Efforts to form a parent group at Lincoln High School were unsuccessful.

The preservice training sessions began with a communications workshop during which a psychologist conducted a sensitivity session whereby staff members gained insight into one another's professional roles in the program. In addition to a program of preservice and inservice training, funding for continuing university education was provided for staff members.

Project Description

In 1972-1973, the program included one class at each level, kindergarten through grade four at Vieau School, and several social studies and reading classes at Lincoln and South Division High Schools. The classes were taught in both

English and Spanish by a bilingual staff, predominantly Spanish-American. Spanish-American bilingual aides, student advisors, and a community liaison person assisted the teachers and students in the classroom and helped pupils and parents with school-related problems.

Vieau School

This school, 70% Spanish-surnamed, has been described in the preceding section. Note that Bilingual Program classes offered Spanish Language Arts and Spanish Reading in addition to the regular curricula, and that subjects were taught in Spanish and English by bilingual Spanish-American teachers. Both languages were used as the language of the classroom. Latin-American culture and history were emphasized. Interviews with teachers and school administrators provided the following additional information:

Kindergarten

The Bilingual Program kindergarten was considered to be a slower group in 1972-1973 than in previous years. Those pupils who had been to Head Start did not have more skills than the non-Head Start group, as in the past. (The comparison group teacher characterized her Latin-American pupils as very quiet and hesitant to talk. They speak Spanish at home and English at school.)

First Grade

The Bilingual Program teacher reported that her pupils were better prepared than last year and attributed this to the all-day bilingual kindergarten initiated in 1971-1972. Four pupils were considered too immature for first-grade work. (Many comparison group pupils were also still at readiness levels at mid-term.)

Second Grade

In the bilingual class, bright pupils were reading below their ability levels. This condition seemed to be due to confusion during first grade when guidelines were abandoned and children were taught reading in both Spanish and English. The teacher discontinued team teaching because it was too time consuming. (The comparison second-grade and bilingual third-grade teachers teamed for English reading to reduce the number of reading groups per classroom.)

Third Grade

The bilingual third grade had two teachers, enabling the class to be divided into language-ability groups for most subjects. (Some Bilingual Program pupils had English reading in the second-grade comparison group. In the comparison class, most subjects were taught to the class as a whole.)

Fourth Grade

The bilingual fourth-grade class included some third-grade pupils. Team teaching for English reading was practiced with the comparison teacher, who taught the bilingual third graders. Comparison group Spanish-dominant pupils had English reading with the bilingual class. Both teachers observed that the Spanish-dominant pupils had poor reading skills.

Reading Resource Teacher

This special bilingual reading teacher taught English Language Arts and reading to three Spanish-dominant and 30 Bilingual Program pupils, and to nine newly-arrived Spanish-dominant upper-elementary pupils.

Bilingual Resource Teacher

The major responsibility of the Bilingual Resource Teacher was to "provide leadership in curriculum development and instructional techniques" at Vieau School. She served as the music teacher for the Bilingual Program. In monthly meetings with teacher aides, she demonstrated the operation of audio/visual equipment, methods of assisting pupils with math and reading, and appropriate responses to classroom interactions. She was also responsible for locating Spanish language instructional materials and developing a Bilingual Resource Center at Vieau School.

Bilingual Aides

Eight persons filled five full-time aide positions. All were Latin-American bilinguals. Their responsibilities included taking attendance, collecting lunch money, up-dating calendar and bulletin boards, cleaning up, and correcting papers. Their academic duties were mainly confined to reviewing lessons with English and Spanish reading groups and mathematics groups. In addition, one taught social studies to third graders in the fourth-grade class, and one taught English reading in the second grade. The Reading Center aide helped with secretarial duties, assisted pupils in the Reading Center, and administered the Spanish Oral Language Test. All except one completed the bilingual aide course at Alverno College during the fall semester. The Bilingual Resource Teacher met with them once a month.

Spanish Curricula Development Center

The Bilingual Program at Vieau School was a field test site for materials developed by the Title VII Spanish Curricula Development Center (SCDC) in Dade County Public Schools, Florida. Participation was limited to levels for which materials had been developed: kindergarten and first grade, Fine Arts; first and second grades, Spanish As A Second Language, Language Arts, and Social Science. Following the completion of a curriculum segment ("kit"), teachers assessed pupil performance and evaluated the materials. Content revisions were then made by SCDC. The materials were edited for Spanish vocabulary relevant to the midwest population by the Curriculum Adaptation Network for Bilingual/Bicultural Education (C.A.N.B.B.E.), whose midwestern office was located in the Milwaukee Public Schools.

South Division High School

Since 1969, when the "Hispano-American Culture, Language, and History" course was initiated and a bilingual student advisor was provided, the program has grown yearly. Additional academic offerings are Bilingual United States History, Bilingual Reading, Personal Economics, Sociology, and The Hispano In An Urban Setting. Spanish For Spanish-Speaking is a related foreign language department program. A second female Latin-American student advisor and a male guidance counselor were added in 1972-1973.

Lincoln High School

The Bilingual Program at Lincoln Jr-Sr High School gained strength following a year of general school upheaval in the largely black-populated school. This year the reading classes were enlarged and the Hispano-American Culture, Language, and History and United States History courses were reinstated. The number of Latin-American student advisors was increased from 1.5 to 2.

Community Liaison

The community liaison person linked the three program schools with the homes and the Latin community. At the schools, she helped Spanish-speaking

parents and students communicate with staff members, aided students in transferring in or out of the school system, arranged for clothing vouchers for needy families, and discussed pupil problems with parents. She attended meetings of Spanish-American churches and organizations to provide the program staff with information.

Methods, Materials, Staff Size

Appendix B contains a description by the teachers of the materials and methods used in bilingual classrooms and comparison classrooms. A study of the charts in Appendix B will reveal the need for increased staff to handle bilingual curricula for pupils at varying achievement levels. Comparative pupil/teacher ratios at Vieau School are shown in Table 2. There were twice as many teachers and more than three times as many aides in the Bilingual Program.

Project Objectives

Each curriculum area has behavioral objectives which serve as teaching guidelines. These were developed and revised by curriculum supervisors and teachers. They are listed in two publications, "Bilingual Elementary Program K-4" and "Performance Objectives for Bilingual Education Offerings at the Secondary Level".

Evaluation guidelines for 1972-1973 limited assessment of the program to achievement in mathematics and language arts at the primary/elementary level, using standardized tests and comparison groups. An additional set of seven objectives was developed for evaluation purposes, in cooperation with the supervisory, administrative, and teaching staffs. They are:

1. Kindergarten Language Arts - Pupils will acquire beginning reading skills in their dominant language, enabling them to score as well as or better than the comparison groups on a standardized test.

2. Kindergarten Mathematics - Pupils will comprehend basic concepts of space, time, and quantity, enabling them to score as well as or better than the comparison groups on a standardized test.

3. Primary/Intermediate English Language Skills, Oral Comprehension - Pupils will acquire English comprehension skills, enabling them to score as well as or better than the comparison group on a standardized listening test by the end of third grade.

4. Primary/Intermediate English Language Skills, Reading - Pupils will acquire English reading skills, enabling them to score as well as or better than the comparison group on a standardized reading test at the end of upper primary, fourth grade, and fifth grade.

5. Primary/Intermediate Spanish Language Arts, Oral Comprehension - Pupils will acquire skills in comprehension of oral Spanish, enabling them to show a gain of at least ten percent from year to year on a published test.

6. Primary/Intermediate Spanish Language Arts, Reading - Pupils will acquire Spanish reading skills, enabling them to score equal to or higher than previous years on a standardized test.

7. Primary/Intermediate Mathematics - Pupils will acquire comprehension of arithmetic concepts and skills in problem-solving, enabling them to score as well as or better than the comparison group on a standardized mathematics test.

Project Population

Number and Sampling Procedures

There were 138 Bilingual Program pupils at Vieau, Grades K-4. The program served 71 students at Lincoln Jr-Sr High School and 208 at South Division High School. These figures include all pupils who were in bilingual classes at some time during the 1972-1973 school year. Evaluation procedures were applied to the total available population. In many cases, results were analyzed according to the pupils' dominant language in order to derive a learning curve according to the linguistic variable.

Selection Procedures

At Vieau School, pupils have been enrolled by their parents, usually at

the kindergarten level. Spanish monolinguals were given enrollment preference. The kindergarten was then filled by random selection of remaining applicants. Those on the waiting list started in the regular kindergarten. There was one bilingual class at each level, kindergarten through fourth grade.

Bilingual Program classes were electives for high school students.

Characteristics

The Bilingual Program population was 96% Latin-Americans. Although one of the United States Office of Education goals was an Anglo/Latin pupil mix proportional to the school population, the enrollment procedures did not result in adherence to this model, as shown in Table 2.

TABLE 2

PROPORTIONS OF SPANISH-AMERICAN PUPILS
IN BILINGUAL PROGRAM SCHOOLS, OCTOBER, 1972

Population		Vieau	Lincoln	South
Total School*	Non-Latin	29%	87.5%	84%
	Latin	71%	12.5%	16%
Bilingual Program	Non-Latin	6%	0	5%
	Latin	94%	100%	95%

* Information obtained from Milwaukee Public Schools publication, "Enrollment by Ethnic Categories and Schools as of October 1, 1972". Spanish-surnamed category.

At primary/elementary levels, many Spanish-American parents felt a need for the program and enrolled their children. Few non-Latin parents enrolled their primary and elementary children in the program. At secondary levels, non-Latins either avoided enrollment or did not have the required fluency in

Spanish (two years of formal Spanish classes).

Pupils in the program varied linguistically. At the beginning of the year they were classified by their teachers as English-dominant, Spanish-dominant, or bilingual (equal facility in English and Spanish). Spanish was the dominant language of 40% in the Vieau program, 22% in the Lincoln Jr-Sr High School program, and 20% in the South Division High School program. In the elementary program, about one-third were English-dominant and one-third bilingual. In the high school programs, 13% were English-dominant and about 65% bilingual.

The type of Spanish was a further linguistic variation. Mexican and Puerto Rican were the most common Spanish variants. They differ in many idioms, vocabulary items, and vocal inflections, as well as the national culture and literature reflected in the language. Usually, Spanish-dominant pupils were born in Mexico or Puerto Rico, or of newly-arrived parents; most bilingual pupils were from Texas or were first-generation United States citizens; English-dominant pupils were largely a second-generation acculturated group.

Teachers reported that most of the fathers were factory workers and the mothers homemakers. Those women who worked were employed mainly by social service agencies or the schools, or as domestic help. There were many jobless heads of households. The Bilingual Community Liaison person estimated that about 50% of the Latin-American families were on welfare, many of these having no male head. She said that about ten percent of the community were mobile, periodically returning to Texas or to visit Puerto Rican rela-

tives in New York or Chicago. They would return to Milwaukee after several months. Children of these families have moved in and out of the program over the years.

Additional pupil characteristics may be found in the Program Descriptions, Appendix B.

EVALUATION DESIGN

United States Office of Education needs for program feedback have shifted from evaluation of behavioral objectives for all program components to a comparison of achievement of Bilingual Program and regular program groups. This evaluation is in terms of pupil performance on standardized test instruments. Comparative data on the same instruments are available for prior years to contribute to a longitudinal study. Assessment at the secondary level was limited to a description of the performance of Bilingual Program students on the measures of the City-Wide Testing Program. Evaluation services, in addition to those required by the United States Office of Education, were furnished on request. These included pre/post testing of reading for the secondary bilingual reading program; maintaining individual longitudinal records of oral Spanish comprehension; providing item analyses of test data; administering high school student questionnaires; conducting a post-high school follow-up; field testing of Spanish version, Otis Lennon Test of Mental Ability, Levels K-12; cooperating in the field-testing of Spanish Curriculum Development Center materials; and translating into Spanish of Addison-Wesley Unit and Review Tests for Elementary School Mathematics, Book 5.

Variables

Elementary Level

Each of the seven evaluation objectives was treated as a separate study. A pretest/posttest comparison group design was used for those objectives

dealing with mathematics and English language skills (except at the kindergarten level). A pre/post design was used without a comparison group for objectives dealing with Spanish Language Arts because only program pupils received instruction in Spanish.

The major independent variable was the bilingual curriculum of the program group. The dependent variable was achievement reflected in scores on standardized tests. It should be noted that the criteria are unusual in that the objectives were met by equalling the performance of the comparison group. Many pilot educational processes aim to demonstrate performance which exceeds the comparison group standard. The reason that equal achievement is the objective for Bilingual Program pupils is that they bear an additional task in learning the entire curriculum in two languages.

In addition to within- and between-group comparisons at the elementary level, some studies investigated the relationship of language dominance to performance. In other studies, prediction models were developed.

Secondary Level

The major independent variable at the secondary level was the Bilingual Program. Dependent variables were achievement gains and student opinion. Evaluation was limited to comparisons on standardized tests and data requested by program staff.

Instrumentation

Instruments were selected and expected performance levels were defined by teaching and curriculum staff members. Results of Title I Special Testing and City-Wide Testing Programs were utilized when possible to avoid excessive testing.

Instruments used were:

Elementary Level

-- Metropolitan Readiness Tests, Form B, with English and Spanish instructions

-- Boehm Test of Basic Concepts, Form A, with English and Spanish instructions

-- Cooperative Primary Tests, Forms 12B and 23B, Mathematics, Word Analysis, Listening, and Reading

-- Iowa Tests of Basic Skills, Forms 3 and 4, Arithmetic, Vocabulary, and Reading

-- Common Concepts Foreign Language Test, Spanish, Form 2

-- Guidance Testing Associates' Tests of Reading Spanish, L-1-DEs and L-2-DEs

-- Test of Comprehension and Use of Oral Spanish (local)

Secondary Level

-- California Achievement Tests, Reading, Levels 3 and 4

-- Lorge-Thorndike Intelligence Tests, Form 1

-- Tests of Academic Progress, Form 1

-- Scholastic Testing Service Youth Inventory, English and Spanish

-- Graduate Follow-Up Questionnaire (local)

Selection of Comparison Groups

Elementary Level

As in previous evaluations, the bilingual class at each grade level at Vieau School was compared with a traditional class at the same grade level at the school at kindergarten and first, second, and fourth grades. The third-grade comparison group was drawn from two classes in order to retain former comparison pupils in the study.

Some comparisons included a random sample of equivalent grade-level

Spanish-surnamed pupils at Kagel, a neighboring school which had a similar Spanish-American population but no bilingual program. These comparisons were an attempt to control for probable "bilingual atmosphere" effects on the Vieau comparison groups, especially where bilingual and regular program staff engaged in team teaching.

Some of the similarities and differences between the Bilingual Program and comparison groups are tabled in the following three pages. The pupil/teacher-pupil/aide ratios in Table 3 show that a larger staff has been needed by the Bilingual Program over the years. This additional help was required for the three language groups (English, Spanish, and bilingual), each of which was further divided into ability levels, at least for reading and math.

Table 4 describes the program and comparison populations according to language dominance.

Ethnic background and attrition data in Table 5 show that almost all Bilingual Program pupils and two-thirds of comparison pupils were Spanish-American. Pre/post attrition was 12%, Vieau bilingual; 17%, Vieau comparison; 19%, South Division bilingual; and eight percent, Lincoln bilingual.

Data are included for two half-day bilingual kindergartens at Allen-Field School, in the same southside area, which started in September.

Secondary Level

Comparisons were limited to tests administered as part of the City-Wide Testing Program. Performance of Bilingual Program students was compared with other students at the same school.

TABLE 3

PUPIL/TEACHER AND PUPIL/AIDE RATIOS
EXPERIMENTAL AND COMPARISON GROUPS

Level	1969-1970 Pupils	Teachers	Aides	1970-1971 Pupils	Teachers	Aides	1971-1972 Pupils	Teachers	Aides	1972-1973 Pupils	Teachers	Aides
Kindergarten X*	22 ½ day	1	1	22 ½ day	1	1	22 all day	1	1	22 all day	1	1
Kindergarten C**	28 ½ day	1	1/3	26 ½ day	1	1/3	20 ½ day	1	¼	27 ½ day	1	1/3
Grade One X	28	1	1	26	1	1	23	2	1	32	2	1
Grade One C	23	1	1/3	22	1	1/3	35	1	½	33	1	1/3
Grade Two X				21	1	1	36	3	2	25	1	1
Grade Two C				20	1	2/5	34	1	½	30	1	2/5
Grade Three X							21	1	1	29	2	1
Grade Three C							28	1	¼	31	1	2/5
Grade Four X										21	1	1
Grade Four C										28	1	1/5
Additional Teachers X	2 supervising teachers K-1			2 supervising teachers K-2 1 team teacher 1 community liaison			2 supervising teachers K-3 1 team teacher 1 community liaison 1 bilingual resource specialist*			3 supervising teachers K-4 1 resource teacher 1 reading teacher 1 community liaison		
Additional Teachers C	1 supervising teacher K-8			1 supervising teacher K-8			1 supervising teacher K-8			2 supervising teachers K-8		

Pupil/Teacher Pupil/Aide Ratio	1969-1970 Teacher	Aide	1970-1971 Teacher	Aide	1971-1972 Teacher	Aide	1972-1973 Teacher	Aide
X	12:1	25:1	5:1	13:1	13:1	19:1	10:1	25:1
C	17:1	39:1	23:1	78:1	30:1	45:1	21:1	84:1

* X=Bilingual group
** C=Comparison group

TABLE 4

LANGUAGE DOMINANCE OF
BILINGUAL PROGRAM AND COMPARISON GROUPS
OCTOBER, 1972

Grade Level		Language Dominance: English *Vx	English Vc	English Kc	Spanish Vx	Spanish Vc	Spanish Kc	Bilingual Vx	Bilingual Vc	Bilingual Kc	Total Vx	Total Vc	Total Kc
Elementary													
Kindergarten		8	11	20	11	7	1	3	8	5	22	26	26
One		7	22	15	13	7	4	12	4	5	32	33	23
Two		8	23	18	9	1	1	8	6	6	25	30	26
Three		2	15	12	13	1	1	14	15	0	29	31	13
Four		7	28	12	6	0	10	8	0	0	21	28	22
	Number	32	99	77	52	16	17	45	33	16	129	148	110
	Percent	25	67	70	40	11	15	35	22	15			
Secondary													
Lincoln Bilingual Program Group													
Seven		1			1			0			2		
Eight		3			4			2			9		
Nine		0			5			16			21		
Ten		0			5			13			18		
Eleven		2			0			9			11		
Twelve		3			0			3			6		
	Number	9			15			43			67		
	Percent	13			22			65					
South Division Bilingual Program Group													
Ten		10			15			46			74		
Eleven		7			11			28			46		
Twelve		3			5			27			35		
	Number	20			31			101			155		
	Percent	13			21			66					
Totals	Number	61	99	77	98	16	17	189	33	16	351	148	110
	Percent	17	67	70	28	11	15	55	22	15			

* Vx=Vieau Bilingual Program
Vc=Vieau comparison group
Kc=Kagel comparison group

TABLE 5

ETHNIC COUNT AND ATTRITION
1972-1973

School and Grade Level	Ethnic Count May, 1973						Attrition September, 1972 - May, 1973											
	Cuban	Mexican	Puerto Rican	Other Spanish-American	Other	Total	Other School	Other City	Texas	Mexico	Puerto Rico	Married	Other Group (X or C)	Unknown	Over 18	Medical	Other	Total
Viesu:																		
Bilingual Kindergarten	0	14	7	0	0	21	0	0	0	1	1	0	0	0	0	0	0	2
Comparison Kindergarten	0	15	4	0	6	25	2	0	0	0	1	0	2	0	0	0	0	5
Bilingual First Grade	0	19	8	0	0	27	0	0	0	0	1	0	3	0	0	0	0	4
Comparison First Grade	0	6	8	1	13	28	5	3	0	0	0	0	0	0	0	0	0	8
Bilingual Second Grade	0	8	13	1	0	22	1	0	0	0	3	0	2	1	0	0	0	7
Comparison Second Grade	1	8	5	3	8	25	3	0	0	0	0	0	1	0	0	0	0	4
Bilingual Third Grade	0	17	8	0	1	26	0	0	0	0	0	0	2	1	0	0	0	3
Comparison Third Grade	0	14	5	0	15	34	5	1	0	0	2	0	1	0	0	0	0	9
Bilingual Fourth Grade	0	7	10	0	4	21	1	0	0	0	0	0	0	0	0	0	0	1
Comparison Fourth Grade	0	17	6	1	4	28	1	0	0	0	0	0	0	1	0	0	0	2
South Division High School	1	80	67	7	4	159	3	5	2	4	3	2	0	9	7	1	4	40
Lincoln Jr-Sr High School	0	5	62	1	0	68	1	0	0	0	1	0	1	3	0	0	0	6
Program Percent	<01	44	51	3	1		2	1	<01	1	3	1	2	4	2	<01	1	
Comparison Percent	<01	43	20	4	33		10	3	0	0	2	0	3	1	0	0	0	

Limitations

The results of comparisons between the Bilingual Program classes and the regular classes should be interpreted cautiously. The volunteer nature of the program group violates the assumption of random assignment required by the statistical tests of significance. The reader is advised to consider the findings as possible trends or outcomes which pose questions for further study.

The identification of successful and unsuccessful effects of the variations in curricula were masked. Program modification was an ongoing process, but the testing necessary to determine the effects of treatment variation was not. Such an evaluation was neither required by the guidelines nor desired by the teachers.

An additional constraint was the initiation of team teaching in some reading and/or language arts components by bilingual and comparison second-, third-, and fourth-grade teachers.

Results of the City-Wide and ESEA Title I Testing Programs were incorporated in the evaluation design to avoid additional testing wherever possible. At the primary/elementary level, these tests - Metropolitan Readiness Tests, Cooperative Primary Tests, and Iowa Tests of Basic Skills (October) - were administered by the classroom teacher. All other tests were administered by a bilingual tester. At the secondary level, school personnel administered all except the reading tests, which were given by the bilingual tester.

FINDINGS: ELEMENTARY LEVEL

Comparisons of pre/post performance pertain to those pupils who were tested on both occasions.

Objective 1

> Kindergarten Language Arts: Pupils will acquire beginning reading skills in their dominant language, enabling them to score as well as or better than the comparison classes on a standardized test.
>
> The objective was achieved.

The Metropolitan Readiness Test was a scheduled component of the City-Wide Testing Program. Staff members requested comparisons on the Word Meaning, Listening, Alphabet, Matching, and Copying Subtests to assess beginning reading skills. Test instructions were translated into Spanish with the publisher's permission, so that all pupils could be tested. Data were gathered for the regular kindergarten at Kagel School and the bilingual kindergarten at Allen-Field School. Refer to Appendix B for descriptions of these programs.

Results are shown in Tables 6 and 7. On the total score, the Bilingual Program pupils scored higher than the Vieau and Kagel comparison groups, but did not differ from the Allen-Field bilingual kindergarten. The fact that pupils in the Allen-Field program, not a full-day program, also scored higher than pupils in the two non-bilingual programs suggests that the bilingual aspect was effective in facilitating the learning of skills by Spanish-American pupils. The greatest differences between language skills of the bilingual and non-bilingual kindergartens were in Word Meaning and Matching.

TABLE 6

PUPIL PERFORMANCE ON THE
METROPOLITAN READINESS TESTS
BILINGUAL AND COMPARISON KINDERGARTENS
MAY, 1973

Group	N		Raw Scores: Word Meaning	Listening	Matching	Alphabet	Numbers	Copying	Total
Vieau Bilingual Full-Day	22	$\bar{X}$	8.2	9.0	10.4	12.3	12.4	6.4	58.2
		SD	2.1	2.4	1.4	3.6	3.1	2.2	8.8
Vieau Comparison Half-Day	17	$\bar{X}$	6.1	9.0	5.7	10.2	9.2	7.1	47.7
		SD	2.2	2.4	2.8	4.4	3.6	2.8	12.4
Kagel Comparison Half-Day	31	$\bar{X}$	6.7	8.1	8.1	9.0	9.0	4.4	45.0
		SD	2.6	2.9	3.3	5.1	3.7	2.8	16.6
Allen-Field Comparison Half-Day	36	$\bar{X}$	9.8	9.4	10.9	9.5	12.1	6.0	57.9
		SD	2.7	3.1	2.1	4.4	4.1	3.2	15.8
Highest Possible Score			16	16	14	16	26	14	102

Differences, Total Raw Scores

	Difference	t
Vieau Bilingual-Vieau Comparison	10.5	2.96*
Vieau Bilingual-Kagel Comparison	13.2	3.75*
Vieau Bilingual-Allen-Field Comparison	0.3	0.01
Allen-Field Comparison-Kagel Comparison	12.9	3.24*

* Significant at the .01 level
N = Number of Pupils
$\bar{X}$ = Mean
SD = Standard Deviation

TABLE 7

COMPARISONS OF SCORES BY LANGUAGE DOMINANCE
METROPOLITAN READINESS TESTS
BILINGUAL AND COMPARISON KINDERGARTENS
MAY, 1973

Group	Dominant Language	N		Raw Scores: Word Meaning	Listening	Matching	Alphabet	Numbers	Copying	Total
Vieau Bilingual (All-day program)	English	10	$\bar{X}$	8.8	9.7	10.7	13.5	13.9	7.3	63.9
			SD	2.5	2.0	1.5	3.4	3.3	2.4	9.2
	Spanish	9	$\bar{X}$	7.6	7.9	9.1	9.9	8.9	4.7	47.9
			SD	1.8	2.8	1.6	4.8	3.0	2.7	10.4
	Bilingual	3	$\bar{X}$	8.0	10.0	13.0	15.3	15.0	9.0	70.0
			SD	1.4	2.[illegible]	0.8	0.5	2.9	0.0	2.9
Vieau Comparison (Half-day program)	English	8	$\bar{X}$	6.5	9.8	4.8	10.5	8.6	5.9	45.6
			SD	3.4	2.6	3.0	4.3	4.8	3.0	15.7
	Spanish	2	$\bar{X}$	4.5	8.0	5.0	6.5	8.5	12.0	44.5
			SD	1.5	2.0	0.0	5.5	1.5	2.0	1.5
	Bilingual	7	$\bar{X}$	6.0	8.4	6.9	11.0	10.0	7.1	51.1
			SD	1.1	2.5	3.4	4.1	3.2	2.9	11.8

Differences, Total Raw Scores

Dominant Language		Difference	t
Bilingual Group-English	Comparison Group English	18.30	2.92
Bilingual Group-Spanish	Comparison Group Spanish	3.40	0.94
Bilingual Group-Bilingual	Comparison Group Bilingual	18.90	3.96*

* Difference is significant at the .01 level of confidence

Table 7 and Figure 2 show results by language dominance for the Vieau program and comparison groups. In both classes, bilingual pupils received higher total scores than English- or Spanish-dominant. It appears that facility in two languages is an asset in intellectual functioning on a verbal test such as the Metropolitan. Figure 3 illustrates the performance of the Vieau Bilingual Program and comparison groups since 1970. In 1970 and 1971, the bilingual kindergarten had a half-day program. Since then, the bilingual kindergarten has been a full-day program and the comparison kindergarten has remained a half-day program. Bilingual Program kindergarten performance has risen from initial comparative lows in all subtests in 1970 to higher performance than the comparison group in all but the Copying Subtest.

FIGURE 2

COMPARISON OF SCORES BY LANGUAGE DOMINANCE
METROPOLITAN READINESS TESTS, MAY, 1973

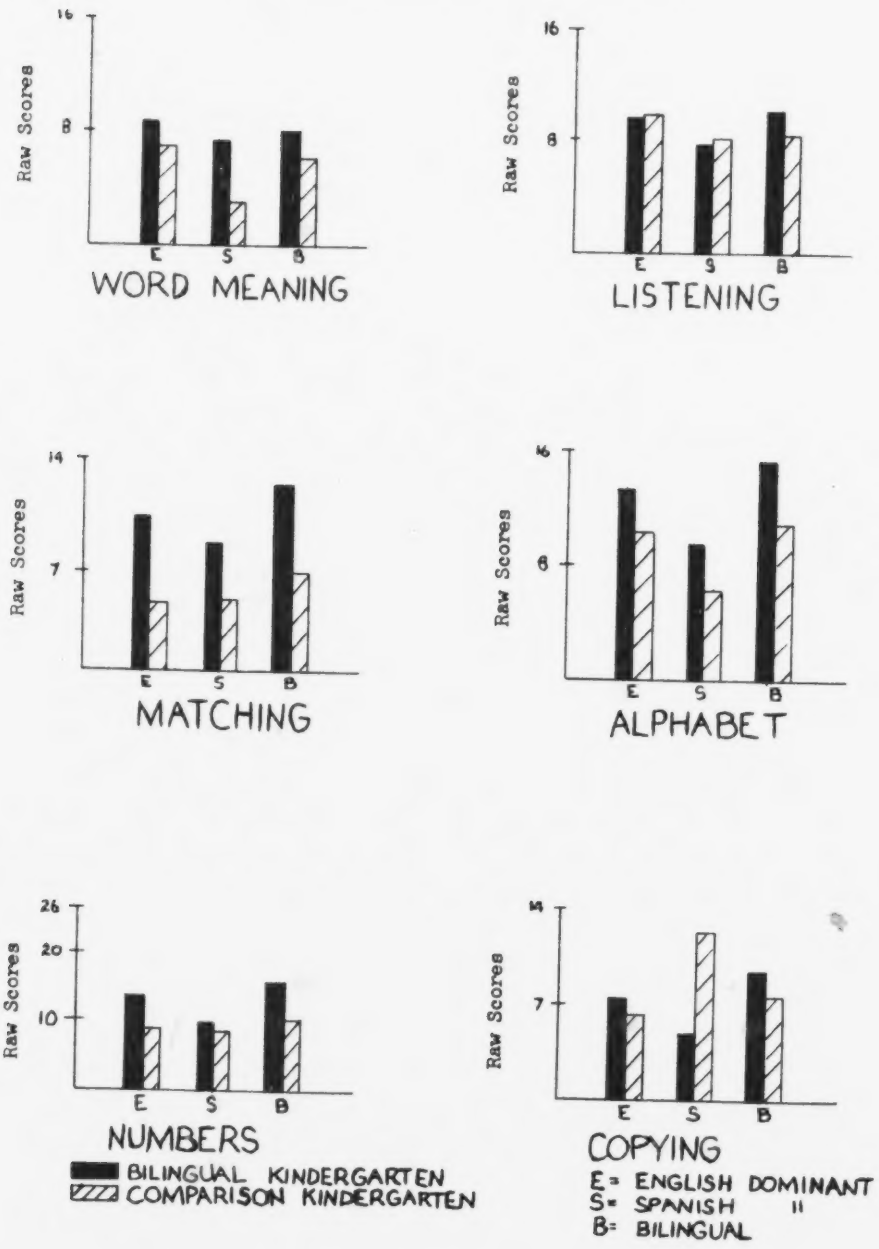
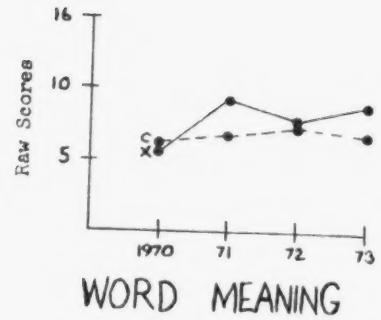
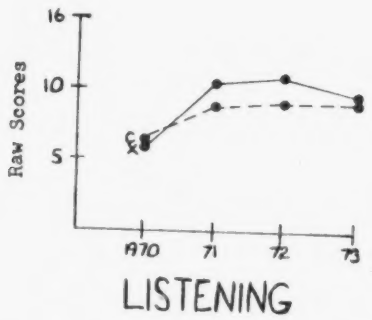


FIGURE 3

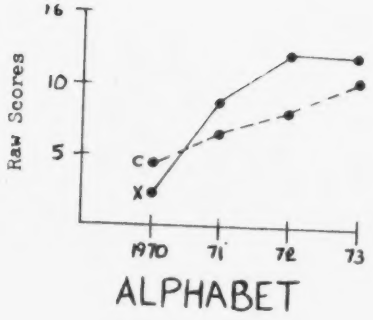
BILINGUAL VS. COMPARISON, KINDERGARTEN
METROPOLITAN READINESS TESTS
1970-1973



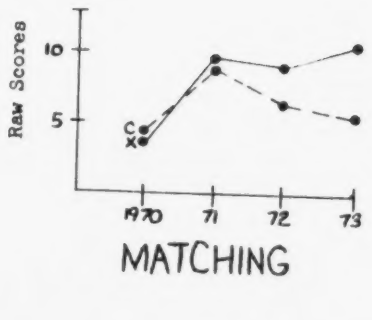
WORD MEANING



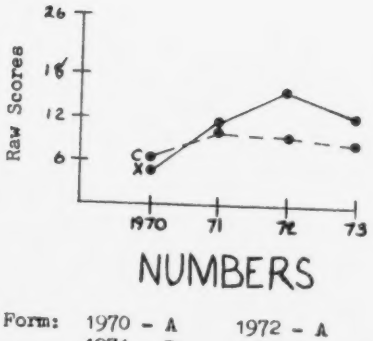
LISTENING



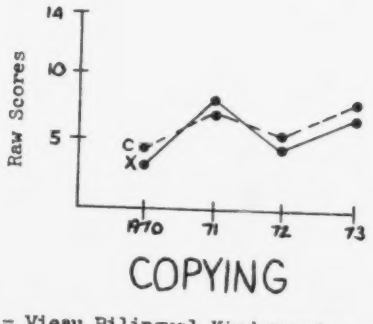
ALPHABET



MATCHING



NUMBERS



COPYING

Form: 1970 - A 1972 - A
1971 - B 1973 - B

X = Vieau Bilingual Kindergarten
C = Vieau Comparison Kindergarten

Objective 2

Kindergarten Mathematics: Pupils will comprehend basic concepts of space, time, and quantity, enabling them to score as well as or better than the comparison group on a standardized test.

The objective was achieved.

The Boehm Test of Basic Concepts was administered to the Vieau bilingual and comparison kindergartens in September and April, in English and Spanish, by a bilingual tester.

The test has 50 items: 23 space items, 18 quantity items, four time items, and five miscellaneous.

As Table 8 and Figure 4 show, those who had pre and posttests in both the bilingual and comparison kindergartens began at similar levels and made similar gains on total score.

TABLE 8

PRE/POST RESULTS
BOEHM TEST OF BASIC CONCEPTS
SEPTEMBER, 1972, AND
APRIL, 1973

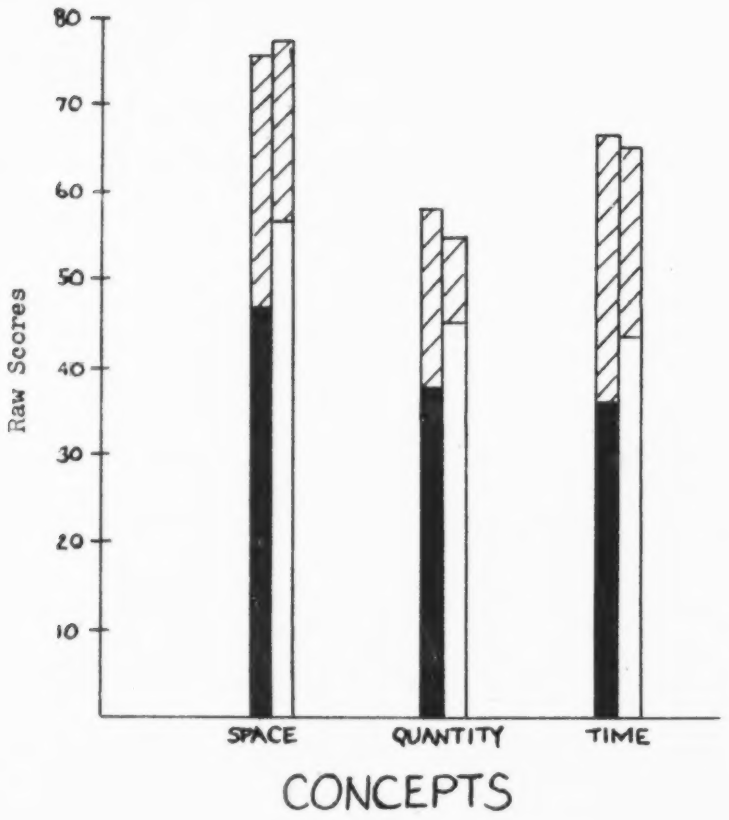
	Bilingual Kindergarten			Comparison Kindergarten			Difference	t
	N	$\bar{X}$	SD	N	$\bar{X}$	SD		
Beginning of Year	18	21.7	8.6	15	22.8	8.3	-1.1	-0.37
End of Year	18	33.8	6.2	15	31.9	6.3	1.9	0.87

Highest Possible Score = 50

On national norms for low socio-economic level, the groups had percentile

FIGURE 4

PRE/POST RESULTS
BOEHM TEST OF BASIC CONCEPTS



Bilingual Kindergarten, September, 1972, Pretest
Comparison Kindergarten, September, 1972, Pretest
May, 1973 Gain, Pretest to Posttest, Both Groups

ranks of 35 (comparison) and 40 (bilingual) in fall on beginning-of-year norms, and 70 (comparison) and 75 (bilingual) in spring (based on mid-year norms). The least understood concepts at the end of the year were quantity items of equality, pairs, and sequence and order.

The concepts of quantity were answered correctly by little more than half of each group. First-grade teachers may wish to emphasize those which were least understood.

The results are presented by language dominance in Table 9. Bilingual Program Spanish-dominant and bilingual pupils made greater gains than those in the comparison kindergarten.

TABLE 9

PRE/POST RESULTS BY DOMINANT LANGUAGE
BOEHM TEST OF BASIC CONCEPTS
SEPTEMBER, 1972, AND APRIL, 1973

Group	Dominant Language	Number of Pupils	Raw Scores Pre $\bar{X}$	Pre SD	Post $\bar{X}$	Post SD	Gain
Bilingual	English	6	27.5	9.1	37.5	4.4	10.0
	Spanish	9	15.3	4.6	30.2	6.1	14.9
	Bilingual	3	26.0	1.6	37.3	2.9	11.3
Comparison	English	8	19.0	8.7	30.0	7.4	11.0
	Spanish	2	22.5	2.5	32.0	1.0	9.5
	Bilingual	5	29.0	4.3	35.0	3.7	6.0

Although the numbers of students are small, one must conclude that, for this test,

-- the objective of similar bilingual kindergarten/regular kindergarten per-

formance was achieved.

-- the groups had similar pre/post scores despite the differences in length of program (bilingual kindergarten, full-day; comparison kindergarten, half-day).

Bilingual Program kindergarten pupils scored higher than the comparison group on the Numbers Subtest of the Metropolitan Readiness Tests administered in May, 1973. Twenty-two Bilingual Program pupils averaged 12.0; 17 comparison pupils averaged 9.2 (Figure 3). According to the test manual, the Numbers Subtest tests number concepts and knowledge, and ability to manipulate quantitative relationships and to produce number symbols. It is an important predictor of success in first-grade mathematics.

Objective 3

Primary/Intermediate English Language Skills, Oral Comprehension: Pupils will acquire English comprehension skills, enabling them to score as well as or better than the comparison group on a standardized listening test by the end of third grade.

The objective was partially achieved.

Results are presented for all grade levels to endeavor to obtain a picture of bilingual learning. Comprehension was measured by the Cooperative Primary Listening Subtest at grades one and two and the Word Analysis Subtest at grade three.

The Listening Subtest of the Cooperative Primary Tests (Form 12B) was administered in English to Vieau first-grade pupils and Vieau and Kagel second-grade pupils by classroom teachers in May, 1973. Test items require comprehension, recall, and interpretation of the spoken word. The listening test measures "ability to respond to the meaning of words". Mean scores are shown in Table 10. The mean of the Vieau comparison group exceeded the bilingual group mean score at the first-grade level. At second grade, the Bilingual Program group did not differ statistically from the Vieau or Kagel comparison group. (Vieau comparison's high mean score shows performance excelling the Kagel comparison group.)

TABLE 10

DIFFERENCES BETWEEN BILINGUAL AND COMPARISON FIRST AND SECOND GRADES ON THE LISTENING SUBTEST, COOPERATIVE PRIMARY TESTS

	Raw Scores					
	Grade 1, Form 12B			Grade 2, Form 12B		
	Number of Pupils	Mean	Standard Deviation	Number of Pupils	Mean	Standard Deviation
Bilingual	16	28.5	4.9	8	37.8	3.0
Vieau Comparison	25	35.2	5.0	16	40.1	4.1
Kagel Comparison				22	34.3	5.3

Highest Possible Score = 50 on all forms

Differences, Mean Raw Scores

	Difference	t
Grade 1:		
Vieau Bilingual-Vieau Comparison	-6.7	-4.24*
Grade 2:		
Vieau Bilingual-Vieau Comparison	-2.3	-1.56
Vieau Bilingual-Kagel Comparison	3.5	2.26
Vieau Comparison-Kagel Comparison	5.8	3.80*

* Difference is significant at the .01 level

At the third-grade level, Vieau bilingual pupils scored significantly lower than the pupils in the Vieau comparison group on the Word Analysis Subtest. Therefore, the objective was not achieved. The Kagel comparison group of Spanish-surnamed pupils also scored significantly lower than the Vieau comparison group. The Vieau Bilingual Program and Kagel comparison scores did not differ significantly. These results are shown graphically in Table 11 and Figure 5.

TABLE 11

DIFFERENCES BETWEEN THE BILINGUAL AND COMPARISON THIRD GRADES ON THE WORD ANALYSIS SUBTEST, COOPERATIVE PRIMARY TESTS

Grade	Group	Number of Pupils	Mean Raw Score	Standard Deviation
3	Vieau Bilingual	24	43.8	6.3
	Vieau Comparison	28	51.1	4.6
	Kagel Comparison	17	45.5	6.5

Highest Possible Score = 60

Differences, Mean Raw Scores

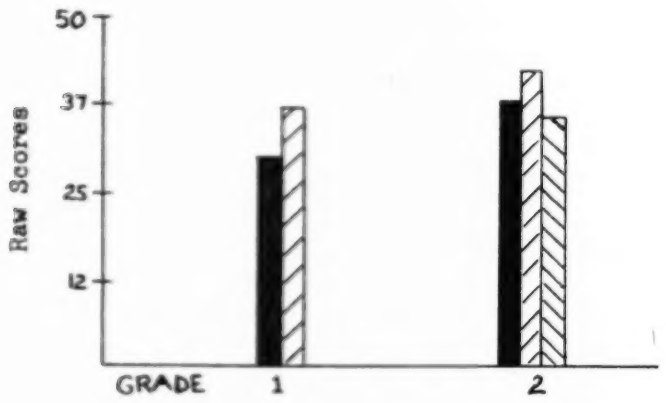
	Difference	t
Vieau Bilingual-Vieau Comparison	-7.3	-4.70*
Vieau Bilingual-Kagel Comparison	-1.7	-0.83
Vieau Comparison-Kagel Comparison	5.6	3.11*

* Difference is significant at the .01 level of confidence

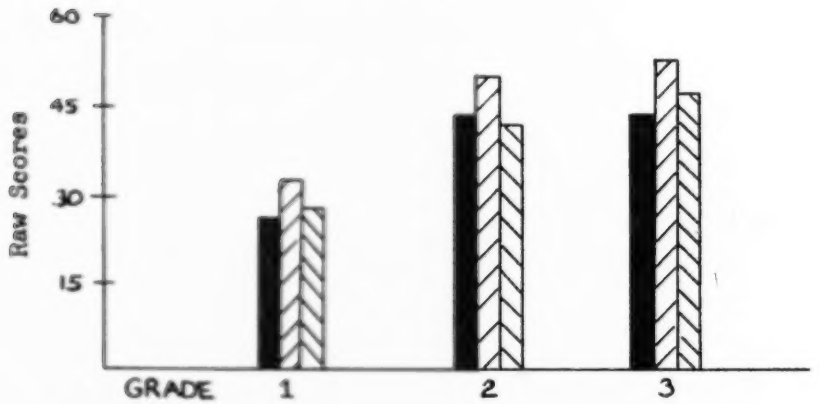
The Bilingual Program coordinator speculated that the repeated superiority of the third-grade comparison group may have been related to the learning environment of the bilingual group. Two teachers and an aide taught a large class in a small room. In addition, eight Bilingual Program third graders were newcomers.

FIGURE 5

PERFORMANCE OF BILINGUAL AND COMPARISON GROUPS ON
COOPERATIVE PRIMARY LISTENING AND WORD ANALYSIS SUBTESTS



LISTENING



WORD ANALYSIS

VIEAU BILINGUAL
VIEAU COMPARISON
KAGEL COMPARISON

Fourth-grade Bilingual Program pupils took the 80-item Common Concepts Foreign Language Test in May, 1973. The task was to select one of four pictures describing stimulus sentences spoken in English. According to the manual, the test assesses Level 1 linguistic understandings of the "basic language concepts in both expression and content structure of the language". The bilingual fourth grade scored higher than the comparison group (Table 12). The nine Bilingual Program pupils who had been tested in May, 1972, (mean score = 63.0) averaged 78.4 in 1973, a 24% gain. The highest possible score is 80. At the end of fourth grade, both groups demonstrated good basic aural comprehension of English.

TABLE 12

PUPIL PERFORMANCE ON THE
COMMON CONCEPTS FOREIGN LANGUAGE TEST
ENGLISH, BILINGUAL AND COMPARISON FOURTH GRADES

	Vieau Bilingual	Vieau Comparison	Difference	t
Number of Pupils	16	23		
Mean Raw Score	78.44	75.65	2.79	3.10*
Standard Deviation	1.62	3.85		

* Difference is significant at the .01 level of confidence

Objective 4

Primary/Intermediate English Language Skills, Reading: Pupils will acquire English reading skills, enabling them to score as well as or better than the comparison group on a standardized reading test at the end of upper primary, fourth grade, and fifth grade.

Grade 3: Objective was partially met.
Grade 4: Objective achieved.
Grade 5: No fifth grade at this time.

Second- and third-grade pupils were tested on the Reading Subtest of the Cooperative Primary Tests by their classroom teachers in May, 1973. The pupil read the stimulus material and selected one of three responses. Picture stimuli comprise 40% of the second-grade level, Form 12B, and 15% of the third-grade level, Form 23B. The 50-item test measures comprehension of words, and extraction and interpretation of sentences and paragraphs. Second-grade results are included for additional information.

Results for the Bilingual Program groups and the Vieau and Kagel comparison groups are shown in Table 13 and Figure 6.

The second-grade (middle primary) Bilingual Program class did not differ statistically from the comparison groups. The objective was not met at the third grade as the achievement of the bilingual class was exceeded by that of the Vieau comparison group. However, the bilingual class performance was similar to that of the Spanish-American pupils who comprised the Kagel comparison group. Most third-grade pupils in the Bilingual Program were taught both English and Spanish reading. Comparison group pupils learned to read only English.

TABLE 13

PUPIL PERFORMANCE OF BILINGUAL AND COMPARISON SECOND AND THIRD GRADES ON THE READING SUBTEST, COOPERATIVE PRIMARY TESTS MAY, 1973

Group	Grade 2, Form 12B			Grade 3, Form 23B		
	Number of Pupils	Mean	Standard Deviation	Number of Pupils	Mean	Standard Deviation
Bilingual	9	31.7	10.2	24	26.2	6.1
Vieau Comparison	16	31.9	5.2	19	34.6	6.5
Kagel Comparison	22	27.8	7.9	23	24.7	5.9

Differences, Mean Raw Scores

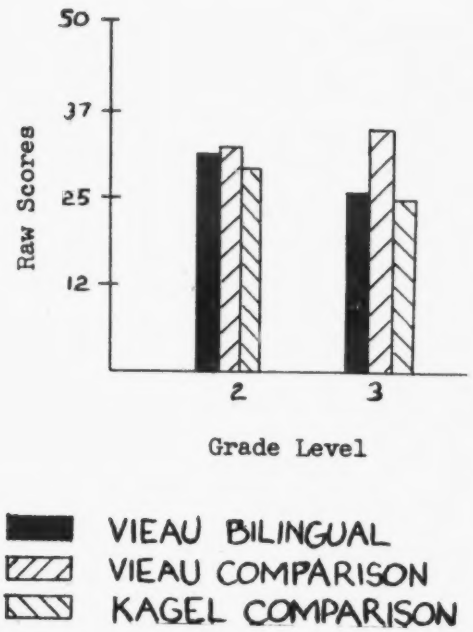
	Difference	t
Grade 2:		
Vieau Bilingual-Vieau Comparison	-0.2	-0.05
Vieau Bilingual-Kagel Comparison	3.9	1.03
Vieau Comparison-Kagel Comparison	4.1	1.91
Grade 3:		
Vieau Bilingual-Vieau Comparison	-8.4	-4.32*
Vieau Bilingual-Kagel Comparison	1.5	0.85
Vieau Comparison-Kagel Comparison	9.9	5.12*

* Difference is significant at the .01 level of confidence

The lack of significant differences in English reading at second grade may be interpreted as impressive achievement by Bilingual Program pupils, who had all academic subjects except beginning reading in two languages. Third-grade bilingual pupil performance may have been limited by the factors noted in the discussion of Table 11.

FIGURE 6

PUPIL PERFORMANCE
COOPERATIVE PRIMARY TESTS
READING
MAY, 1973



Fourth graders were tested by the classroom teacher in May with Form 3 of the Reading Subtest, Iowa Tests of Basic Skills. The Vocabulary Subtest measures knowledge of the meaning of words, word recognition, and the use of words in context. Reading comprehension includes skills in recognition of details and relationships, recognition of purpose, organization of ideas, and evaluation of materials read.

A comparison of the Bilingual Program and regular class at the end of fourth grade is shown in Table 14.

TABLE 14

BILINGUAL AND COMPARISON GROUP PERFORMANCE
VOCABULARY AND READING SUBTESTS
IOWA TESTS OF BASIC SKILLS
GRADE 4, MAY, 1973

		Bilingual Group	Comparison Group	Difference	t
Vocabulary	Number of Pupils	9	20		
	Mean	3.9	3.2	0.7	2.45
	Standard Deviation	0.7	0.7		
Reading	Number of Pupils	8	20		
	Mean	3.9	3.3	0.6	1.61
	Standard Deviation	1.0	0.9		

At the end of the year, the bilingual and comparison classes scored at the same level (in terms of statistical significance) in vocabulary and reading, thus achieving the objective. It is again emphasized that "no difference" is considered positive achievement for Bilingual Program pupils, who studied all subject matter in both English and Spanish.

Objective 5

Primary/Intermediate Spanish Language Arts, Oral Comprehension: Pupils will acquire skills in comprehension of oral Spanish, enabling them to show the expected gain established by curriculum specialists on a published test.

The objective was achieved at the fourth-grade level. Gain scores were not available at other levels.

The Common Concepts Foreign Language Test, Spanish, Form 2, was administered to all Bilingual Program pupils by a bilingual tester in May, 1973. The test has 80 items designed to assess Level 1 foreign language instruction starting at elementary levels. First graders were tested on Items 1-24 and second graders on Items 1-48. Pupils in grades three and four took the total test. Curriculum specialists had specified a ten percent gain as the criterion for the objective. Gain scores were available for the fourth graders, who had taken Form 1 of the same test in May, 1972. The Examiner's Manual cautions that the two forms are alternate and comparable, but that their empirical equivalency has not been established. Since the small numbers tested to date have precluded the establishment of equivalency locally, the gains reported should be viewed quite tentatively. The test has good construct validity (developed and pilot-tested by linguistic and measurement specialists), high internal consistency, and high concurrent validity with course marks.

Mean scores are shown in Table 15 and Figure 7. The curve of average percent correct shows increasing competence with ascending grade level, demonstrating increasing acquisition of Spanish comprehension.

TABLE 15

PUPIL PERFORMANCE ON THE
COMMON CONCEPTS FOREIGN LANGUAGE TEST
MAY, 1973, SPANISH, FORM 2, BILINGUAL PROGRAM

Bilingual Group	Number of Pupils	Possible High Score	Average Score	Standard Deviation	Average Percent Correct
Grade 1	26	24	19.3	3.8	80
Grade 2	22	48	41.5	4.5	86
Grade 3	30	80	70.6	6.8	88
Grade 4	18	80	74.2	5.2	93

Nine fourth-grade pupils had Form 1 of the test as third graders in May, 1972 (Table 16).

TABLE 16

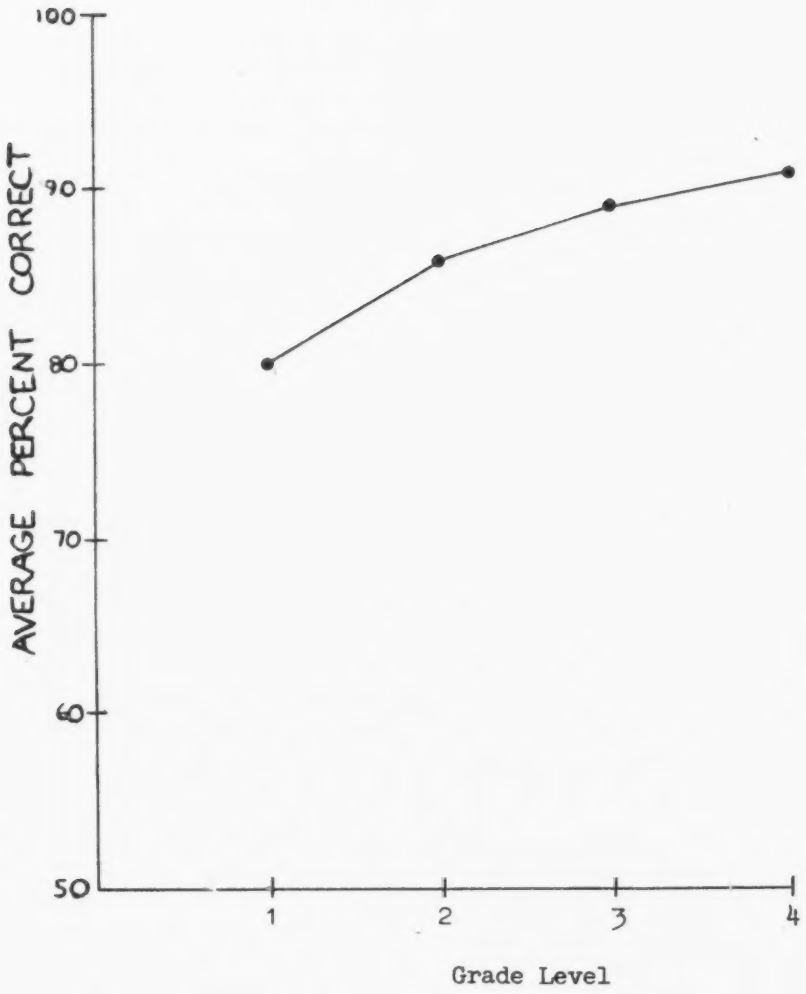
PUPIL GAINS
COMMON CONCEPTS FOREIGN LANGUAGE TEST
NINE BILINGUAL PROGRAM FOURTH-GRADE PUPILS, 1972-1973

	1972	1973	Difference	Percent Gain
Mean	63.0	75.1	12.1	19
Standard Deviation	21.7	3.1		

The nine pupils scored 19% higher in 1973, almost double the criterion gain. It is interesting to note that the national pilot test elementary group which had Spanish, Form 2, scored lower than the group which took Form 1.

FIGURE 7

PERCENT CORRECT BY GRADE LEVEL
COMMON CONCEPTS FOREIGN LANGUAGE
TESTS - SPANISH



Objective 5

Primary/Intermediate Spanish Language Arts, Reading: Pupils will acquire Spanish language skills, enabling them to score equal to or higher than previous years on a standardized test.

The objective was achieved by those few pupils who had been tested previously at a comparable reading level.

Pupils were tested at the end of the year with Guidance Testing Associates' Tests of Reading Spanish, Levels 1 and 2. In previous years, students had received the Level 1 form at the end of first grade and the Level 2 form at the end of second and third grade. This arrangement was unsatisfactory because pupils learning to read Spanish as a second language were not at grade level and because of the generally ungraded nature of the Spanish reading program. This year, teachers designated the test level for each pupil in the Spanish reading program, some of whom were thus tested at a different level from the previous year. First graders were not tested. Results by grade level and test level are shown in Tables 17 and 18.

TABLE 17

PUPIL PERFORMANCE
GTA TESTS OF READING SPANISH
LEVEL 1, MAY, 1973

Grade Level	Number of Pupils	Raw Scores Vocabulary $\bar{X}$	Vocabulary SD	Comprehension $\bar{X}$	Comprehension SD	Total $\bar{X}$	Total SD
2	6	28.3	9.7	27.3	9.3	55.6	18.5
3	22	34.7	5.4	30.2	4.9	64.9	8.[illegible]
4	8	34.0	4.4	33.1	2.2	67.1	5.0
Highest Possible Score		40		40		80	

On the Level 1 test, mean scores ascended by grade level, as would be expected. On the Level 2 test, mean total scores generally descended by grade level.

TABLE 18

PUPIL PERFORMANCE
GTA TEST OF READING SPANISH
LEVEL 2, L-2-DEs,
MAY, 1973

Grade Level	Number of Pupils	Raw Scores: Level $\bar{X}$	Level SD	Speed $\bar{X}$	Speed SD	Vocabulary $\bar{X}$	Vocabulary SD	Total $\bar{X}$	Total SD
2	1	21		15		32		68	
3	7	25.6	3.2	11.0	4.0	28.4	4.9	65.0	5.5
4	10	22.2	5.6	8.8	3.1	26.8	6.6	57.8	12.9
Highest Possible Score		40		30		40		110	

Broken down into language-dominance groups, it is noted that (Table 19 and Figure 8) Spanish-dominant pupils tended to excel at Level 1 and bilingual pupils tended to excel at Level 2.

The only sizeable group with same-level scores from Spring, 1972, were nine fourth-grade students who had equivalent forms at Level 2 (Table 20). There are no data available to equate scores of the two forms at grades three and four. The Technical Report lists the correlation of Forms L-2-CEs and L-2-DEs as .71 at grade three. The mean scores of this reliability sample were 53.0 for L-2-CEs and 57.0 for L-2-DEs.

TABLE 19

PERFORMANCE BY LANGUAGE DOMINANCE
TESTS OF READING SPANISH

Grade	Dominant Language	L-1-DEs, LEVEL 1 Number of Pupils	Raw Scores Vocabulary	Comprehension	Total	L-2-DEs, LEVEL 2 Number of Pupils	Level	Raw Scores Speed	Vocabulary	Total
	English	2	28.5	27.0	55.5					
2	Spanish	2	23.5	20.5	44.0	1	21	15	32	68
	Bilingual	2	33	34.5	67.5					
	English	1	23.5	31.0	54.5					
3	Spanish	9	37.9	31.3	69.2	4	24.3	12.3	27.5	64.1
	Bilingual	10	34.0	29.0	63.0	3	27.3	8.5	29.7	65.5
	English	5	32.0	32.6	64.6	1	14	6	21	41
4	Spanish	2	39.0	34.5	73.5	2	18	4.5	29	51.5
	Bilingual	0				7	24.6	10.4	27.0	62.0
Highest Possible Score			40	40	80		40	30	40	110

FIGURE 8

PERFORMANCE
BY LANGUAGE DOMINANCE AND GRADE LEVEL
GTA TEST OF READING SPANISH
SPRING, 1973

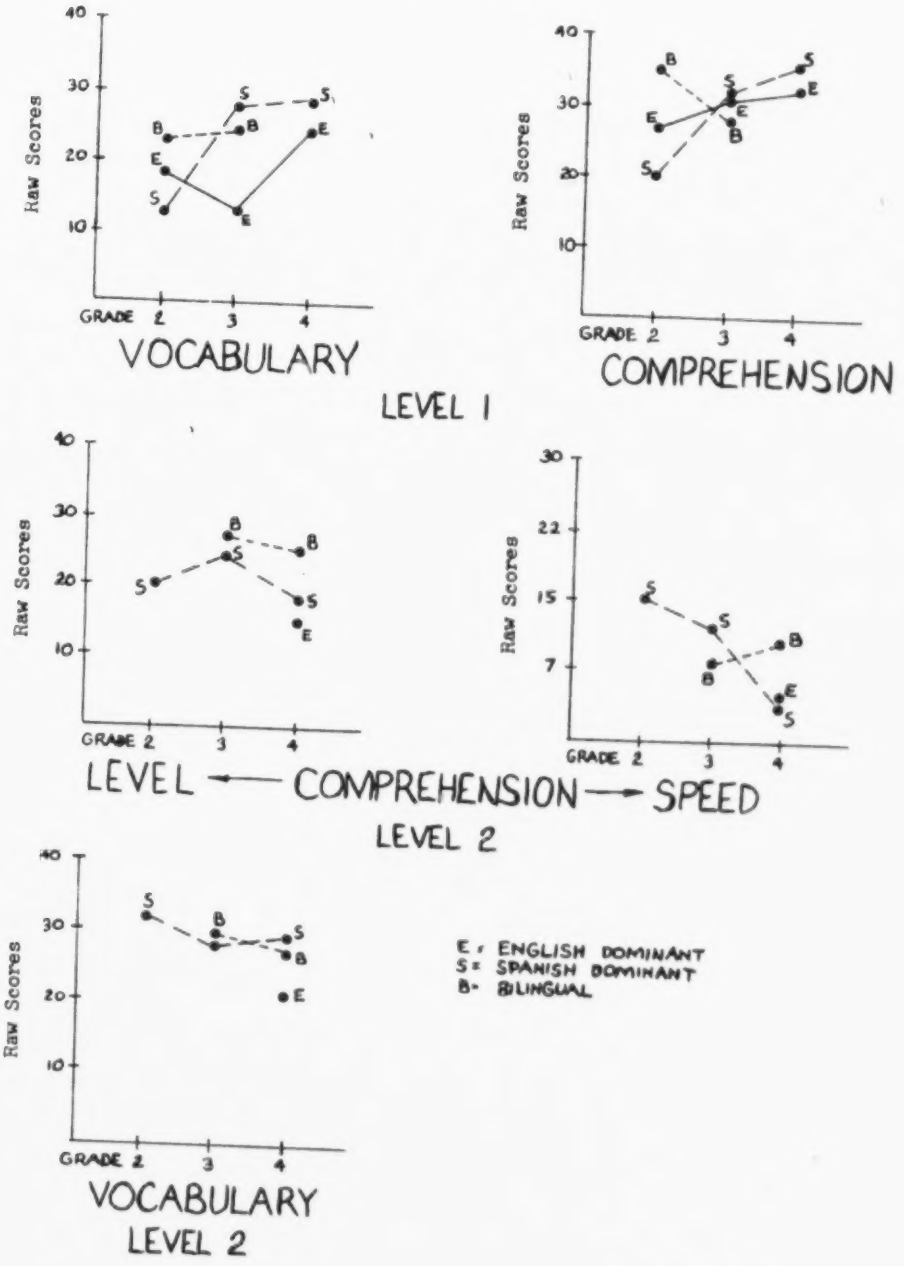


TABLE 20

GAINS OF NINE PUPILS
ON LEVEL 2, TEST OF READING SPANISH
FROM 1972 TO 1973

	Grade 3 Form L-2-CEs 1972 Pre	Grade 4 Form L-2-DEs 1973 Post	Difference	t
Number of Pupils	9	9		
Mean	38.3	58.5	20.2	2.92*
Standard Deviation	15.8	13.4		

* Difference is significant at the .01 level of confidence

Significant gains were achieved by the nine pupils who were pre and post-tested in reading Spanish.

Objective 7

Primary/Intermediate Mathematics: Pupils will acquire comprehension of arithmetic concepts and skills in problem-solving, enabling them to score as well as or better than the comparison group on a standardized mathematics test.

The objective was partially achieved at the first-grade level; not achieved at second grade; partially achieved at third grade; achieved at fourth grade.

The Mathematics Subtest of the Cooperative Primary Tests was administered to first and second (Form 12B), and third grade (Form 23B) Bilingual Program and comparison groups in May, 1973. Results are shown in Table 21.

At first grade, there was no statistically-significant difference between the bilingual class and the Kagel comparison group. The bilingual class scored significantly lower than the Vieau comparison group.

At second grade, the bilingual class scored significantly lower than both comparison groups.

At third grade, there was no significant difference between the bilingual class and the Kagel comparison group. The third-grade bilingual class scored significantly lower than the Vieau comparison group.

In no case was the objective met with reference to the Vieau comparison group, nor was it met at second grade with reference to the Kagel comparison group. Participation in a bilingual curriculum did not appear to facilitate achievement in mathematics (Figure 9).

TABLE 21

COMPARATIVE PERFORMANCE
MATHEMATICS SUBTEST, COOPERATIVE PRIMARY TESTS
BILINGUAL PROGRAM AND COMPARISON GROUPS
MAY, 1973

		Possible High Scores	Number of Pupils	Mean	Standard Deviation
Grade 1 Form 12B	Vx	55	16	27.3	8.1
	Vc	55	24	35.6	5.5
	Kc	55	20	28.9	7.2
Grade 2 Form 12B	Vx	55	9	30.9	4.1
	Vc	55	16	40.5	5.0
	Kc	55	22	37.0	5.7
Grade 3 Form 23B	Vx	60	24	29.1	5.6
	Vc	60	27	36.4	5.9
	Kc	60	23	30.5	8.7

Differences, Mean Raw Scores

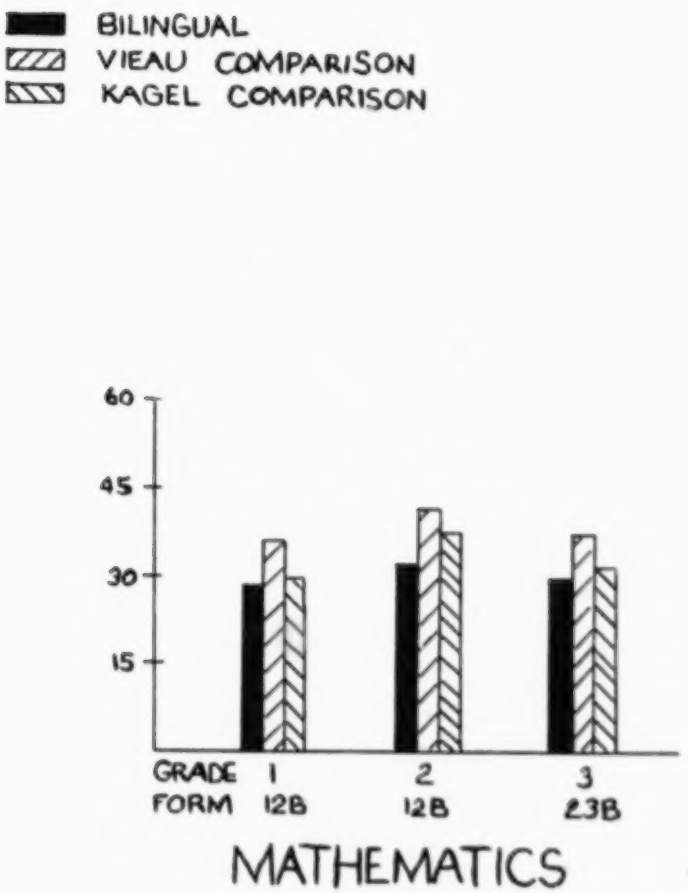
	Difference	t
Grade 1:		
Vieau Bilingual-Vieau Comparison	-8.3	-3.58*
Vieau Bilingual-Kagel Comparison	-1.6	-0.62
Vieau Comparison-Kagel Comparison	6.7	3.41*
Grade 2:		
Vieau Bilingual-Vieau Comparison	-9.6	-5.18*
Vieau Bilingual-Kagel Comparison	-6.1	-3.33*
Vieau Comparison-Kagel Comparison	3.5	2.01
Grade 3:		
Vieau Bilingual-Vieau Comparison	-7.3	-4.53*
Vieau Bilingual-Kagel Comparison	-1.4	-0.12
Vieau Comparison-Kagel Comparison	5.9	2.76

* Difference is significant at the .01 level

Bilingual Program teachers indicated that these results reflected a need to modify class schedules so that more time will be devoted to teaching mathematics.

FIGURE 9

PUPIL PERFORMANCE
COOPERATIVE PRIMARY TESTS
MATHEMATICS



Fourth graders were administered the Arithmetic Subtest of the Iowa Test of Basic Skills, Form 3, administered by a bilingual tester in May, 1973. Table 22 shows the May results for the bilingual and comparison fourth grades.

TABLE 22

PUPIL PERFORMANCE, ARITHMETIC SUBTEST
IOWA TESTS OF BASIC SKILLS, BILINGUAL AND
COMPARISON FOURTH GRADES, MAY, 1973

	Number of Pupils	Grade Equivalents							
		Concepts $\bar{X}$	SD	Difference	t	Problem-Solving $\bar{X}$	SD	Difference	t
Vx	9	4.7*	0.9	1.1	3.27*	4.9*	0.8	1.2	3.62*
Vc	21	3.6	0.7			3.7	0.9		

* Difference between bilingual and comparison score is significant at the .01 level of confidence

The objective was achieved. The nine Bilingual Program students tested scored significantly higher than the comparison group on both concepts and problem-solving at the end of the year.

Other Findings Related To The Total Elementary Program

Comprehension and Use of Oral Spanish

The tape-recorded Test of Comprehension and Use of Oral Spanish was administered by a bilingual teacher-aide to every primary/elementary pupil in the Bilingual Program. The tester questioned the child in Spanish about a series of eight pictures which elicited responses including pronunciation of vowel sounds, initial-intervocalic and final d; verb tenses; word order; possession and contraction. The pupil spoke to a Sesame Street character masking the microphone. Pupils were rated on comprehension (English responses were permitted, if necessary) and oral language. The test was recorded for the second year on an individual tape cassette for each pupil. The cassettes were then sent to a linguist who rated comprehension (on a two-point scale: yes, no) and speech (on a three-point scale: 0=Unacceptable, 1=Acceptable, 2=Like a native). The test concluded with a brief conversation between tester and pupil to enable the rater to comment on the pupil's form of adjectives, stress, intonation, rhythm, ease of expression, and liaison between like vowels and consonants. This conversation was not scored. Testing was completed during the first semester.

Possible high scores were: Understanding=22, Speaking=56, Total=78. Total raw scores by grade level are shown in Table 23.

TABLE 23

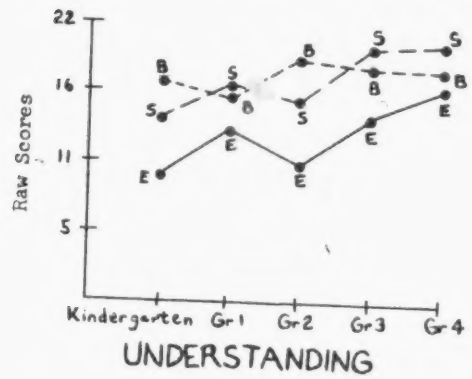
PUPIL PERFORMANCE
TEST OF COMPREHENSION AND USE OF ORAL SPANISH
BILINGUAL PROGRAM PUPILS
1972-1973

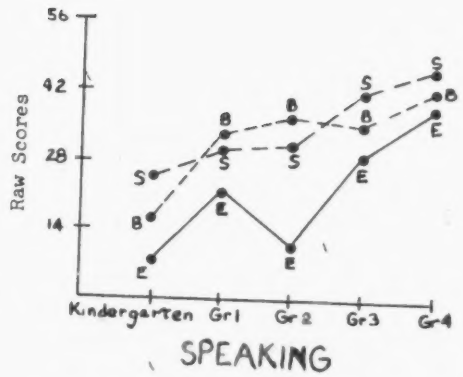
	Number of Pupils	Raw Scores Understanding (22) $\bar{X}$	SD	Speaking (56) $\bar{X}$	SD	Total (78) $\bar{X}$	SD
Kindergarten	22	13.5	4.1	19.9	14.0	33.4	17.4
Grade 1	31	15.6	2.8	27.3	10.8	42.9	12.8
Grade 2	21	14.9	4.5	26.2	13.6	41.1	16.9
Grade 3	30	18.3	2.9	36.2	11.2	54.5	13.1
Grade 4	14	18.9	3.2	42.8	8.9	61.7	11.7

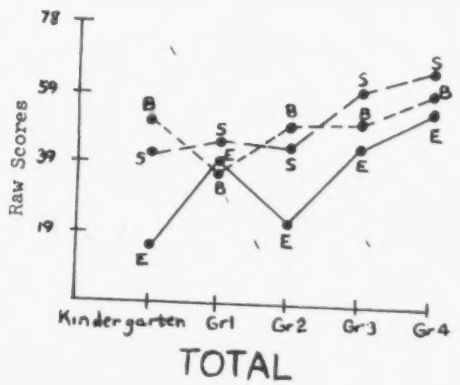
Results are shown by language dominance in Table 24. In the language-dominance breakdown, English-dominant pupils were the lowest scorers, as expected. Spanish-dominant pupils might be expected to be the highest scorers, which is what happened at first, third, and fourth grades. Bilingual pupils scored highest at kindergarten and second grades. This is illustrated graphically in Figure 10. Note that, at the end of fourth grade, the language-dominance groups ranked according to expectations -- Spanish-dominant, highest; bilingual, middle; and English-dominant, lowest -- and that the gaps between groups have narrowed (see Table 24).

FIGURE 10

RESULTS BY DOMINANT LANGUAGE
TEST OF COMPREHENSION AND USE OF ORAL LANGUAGE







E=English Dominant
S=Spanish Dominant
B=Bilingual

TABLE 24

PUPIL PERFORMANCE BY LANGUAGE DOMINANCE
TEST OF COMPREHENSION AND USE OF ORAL SPANISH
BILINGUAL PROGRAM, 1972-1973

	English-Dominant Pupils				Spanish-Dominant Pupils				Bilingual Pupils			
		Raw Scores				Raw Scores				Raw Scores		
	Number of Pupils	Understanding Subtest	Speaking Subtest	Total Scores	Number of Pupils	Understanding Subtest	Speaking Subtest	Total Scores	Number of Pupils	Understanding Subtest	Speaking Subtest	Total Scores
Kindergarten	8	10.6	5.0	15.6	11	14.6	26.5	41.1	3	16.7	35.3	52.0
Grade 1	7	14.0	25.7	39.7	13	16.5	31.1	47.6	11	15.1	23.8	38.9
Grade 2	8	11.9	11.6	23.5	7	15.4	32.9	48.3	6	18.2	36.1	54.3
Grade 3	3	14.3	30.3	44.6	13	19.5	41.6	61.1	14	18.3	35.0	53.3
Grade 4	6	17.7	38.2	55.9	2	19.8	47.3	67.1	6	18.5	42.5	61.0
Highest Possible Score		22	56	78		22	56	78		22	56	78

TABLE 25

RANKING OF PERFORMANCE IN ORAL SPANISH
BY LANGUAGE DOMINANCE AND GRADE LEVEL

	English-Dominant	Spanish-Dominant	Bilingual
Kindergarten	3	2	1
Grade 1	2	1	3
Grade 2	3	2	1
Grade 3	3	1	2
Grade 4	3	1	2

When performance was rank-ordered by language, by the third and fourth grades, Spanish-dominant pupils ranked first and English-dominant last, confirming the expectation (Table 25).

The conclusion is that, by the end of fourth grade:

-- all groups were competent in comprehension of oral language.

-- speaking skills, as required by the test, improved for all language groups with dramatic improvement by English-dominant pupils.

Although the items scored on the test improved by grade level, the rater made the following points in reference to the conversation portion and to Spanish usage taped in 1972 compared with 1973.

-- The second test evidenced an increased tendency to mix Spanish and English without distinguishing between the two languages.

-- Pupils who speak Spanish will resort to English when confronted with complex ideas.

-- Conceptual errors occurred when pupils substituted another word for the one called for, and, thus, changed the meaning.

-- There was a general erosion of linguistic ability, manifested by confusion in the number and gender of nouns and adjectives, improper conjugations of verb forms, anglicization of sounds, and word substitution in English.

-- There was no awareness of the future tense. The progressive (Ir a) was used instead.

-- Dialectically correct speech was often used rather than standardized Spanish.

Role of Bilingual Aides

In response to a group interview in January, 1973, the aides generally agreed that:

-- an opportunity to meet the parents would help them in working with the pupils.

-- regular planning meetings should be held with the classroom teacher, with an opportunity to discuss problems.

-- teacher support is needed to help maintain discipline.

-- they want to be informed of opportunities for continuing education. (Records show that in 1972-1973 Bilingual Program aides enrolled in a total of nine courses at the University of Wisconsin-Milwaukee, Cardinal Stritch College, and Alverno College.)

The aides appeared to be a hard-working group, who want to learn more about education and to communicate more with the classroom teacher.

Activities of Community Liaison Person

The Community Liaison Person reported to the Project Director weekly. A tally of her activities between November, 1972, and April 6, 1973, included:

-- 52 home visits,

-- attendance at 30 school or teacher meetings,

-- visits to agencies or attendance at community meetings on 19 occasions, and

-- assistance to parents (e.g., escorted parent to a health clinic) on eight occasions.

The Community Liaison Person estimated that about 90% of the newcomers arrive from Texas. She predicted that the influx will continue to increase because Milwaukee offers more job opportunities and higher welfare benefits.

Effect of the Bilingual Program on Vieau School

The school principal reported that Vieau's Spanish-surname population increased from 36% in 1961-1962 to 56% in 1968-1969. Prior to the initiation of the Bilingual Program in 1969, the newly-arrived Spanish-speaking had severe behavior problems. Now, he said, these pupils fit in to the school and their behavior is an asset. He attributed the change to: generally good attitude of Vieau teachers and their 150 home visits per year, which blunt the assertions of the activists that the school doesn't care; the Bilingual Program's equal use of Spanish and English; the availability of the Community Liaison Person to help with problems; and the accent on the contributions of Spanish-American culture, which has elevated pupil self-concept.

The vice-principal reported greater staff understanding of the Bilingual Program and an absence of their original negative feelings. This was partially a result of a presentation of the Bilingual Program rationale during a staff-

planning day.

This year a series of meetings for Spanish-American parents enabled them to express their needs to the school and to elect representatives to the Bilingual Program Advisory Committee.

FINDINGS: SECONDARY LEVEL

This section will describe some of the characteristics of secondary students who elected Bilingual Program classes, compare Bilingual Program student performance with other secondary students, and present additional findings. To obtain background for this section, the reader may refer to Appendix B, which describes the classroom components at Lincoln and South Division High Schools.

Student Data

Information about the Bilingual Program students at the two secondary schools is in Table 26. South Division's program population was both Mexican and Puerto Rican, whereas at Lincoln High School it was mainly Puerto Rican. About two-thirds were in their first year in the program.

Comparative Achievement

Bilingual Program students can be compared with their peers at the same school and in Milwaukee on the Reading and Mathematics Subtests of the Tests of Academic Progress administered by the City-Wide Testing Program in Fall, 1972. Table 27, which shows mean standard scores, indicates that Bilingual Program pupils differed little from their peers at the same school. However, both the Bilingual Program students and their school peers had considerably larger proportions in the "Below Average" performance category than the city and the national sample, as shown in Table 28.

TABLE 26

STUDENT DATA
SOUTH DIVISION AND LINCOLN HIGH SCHOOL BILINGUAL PROGRAMS
1972-1973

Student Data		South Division N	South Division %	Lincoln N	Lincoln %
Sex	Male	72	45	35	52
	Female	87	55	33	48
Language Dominance	English	27	17	10	15
	Spanish	34	22	15	22
	Bilingual	95	61	43	63
Ethnic Group	Mexican	80	50	5	7
	Puerto Rican	67	42	62	91
	South American	7	4	1	2
	Cuban	1	1	0	0
	Other	4	3	0	0
Year in Program	First	109	69	45	66
	Second	37	23	16	24
	Third	9	6	7	10
	Fourth	4	2	0	0
Summer School	Yes	9	6	5	7
	No	150	94	63	93
Course Enrollment:					
Bilingual Reading		62	39	35	52
Hispano-American Culture, Language, and History		57	36	37	54
United States History		65	41	5	7
Hispano-Urban Setting		24	15	Not Offered	
Personal Economics		14	9	Not Offered	

TABLE 27

COMPARISON OF BILINGUAL PROGRAM AND
SCHOOL POPULATION ON MEAN SCORES
TESTS OF ACADEMIC PROGRESS
GRADE 10, FALL, 1972

Test	School	Group	Number of Pupils	Mean Standard Score	Standard Deviation	Percentile Rank*
Reading	South Division	Bilingual	46	36.5	8.1	14
		School	552	39.5	8.5	21
	Lincoln	Bilingual	9	39.2	4.6	20
		School	137	35.3	7.4	11
Mathematics	South Division	Bilingual	46	33.6	8.3	12
		School	550	37.2	8.2	20
	Lincoln	Bilingual	10	31.8	6.1	8
		School	140	33.4	7.1	11

* Percentile rank of mean standard scores based on national norms for individual grade ten students

TABLE 28

PERCENT OF STUDENTS SCORING IN
THREE CATEGORIES OF THE DISTRIBUTION
TESTS OF ACADEMIC PROGRESS
GRADE 10, FALL, 1972

Categories	National Sample	READING					MATHEMATICS				
		City	South Division		Lincoln		City	South Division		Lincoln	
			School	Bilingual	School	Bilingual		School	Bilingual	School	Bilingual
		N=8,637	N=552	N=46	N=137	N=9	N=8,598	N=550	N=46	N=140	N=10
Above Average	23	11	2	5	1	0	14	2	0	1	0
Average	54	54	46	27	14	44	54	47	32	28	20
Below Average	23	35	52	68	85	56	32	51	68	71	80

Bilingual Student Advisors

Lincoln Jr-Sr High School and South Division High School each had two student advisors, whose title describes their relationship with students, parents, and school personnel. According to weekly reports to the Project Director, the following assistance was given between September and April at South Division and between April 30 and June 8 at Lincoln High Schools.

The following assistance was given to the indicated number of students:

	South	Lincoln
Having academic difficulties	95	12
Regarding employment	93	17
Regarding economic difficulties (lunch, books, clothing)	87	11
Newly arrived	80	1
Regarding college	58	10
Who became ill	54	3
Regarding discipline problems	42	12
Regarding academic programs	25	12
Wishing to drop school	21	2
Who just wanted to visit	17	120-200
For assorted reasons, such as personal problems, forming a student newspaper, etc.	22	30
Parents contacted by phone or home or office visits	146	21
Assistance to school personnel (counselors, social worker, nurse, attendance office, principal, business office)	185	29
Assistance was given to . . . Bilingual Program teachers	74	16
ESL teachers	4	2
Other teachers	28	0
Other school personnel	31	0

The senior student advisor at South Division reported that the appointment of a Latin-American guidance counselor has facilitated her work with newly-arrived students and those who need program changes.

South Division High School

Bilingual Reading

Descriptions of the secondary reading programs are in Appendix B. The evaluation included assessment of the first of four objectives of the Bilingual Reading Program: "Secondary students will gain at least one English reading level on a pre/post test after two semesters in a bilingual reading class". The bilingual reading classes at South Division High School were tested pre/post with the California Achievement Tests, Reading, Levels 3 (Grades 4-6) and 4 (Grades 6-9). Lincoln High School students were post-tested with Level 3. The lower-level tests were selected because these students either had underdeveloped reading skills or were beginning readers of English. At South Division, 35 students had the pretest only and five the posttest only. Tests were administered by a bilingual tester. Item analyses enabled teachers to identify weak areas, most of which were related to Spanish/English linguistic interference. Table 29 shows grade equivalents based on national norms for pupils who were tested pre/post.

At Level 3, students showed average grade equivalent increases of 11 months in both vocabulary and comprehension. These data indicate that the students gained one year and two months in a one-year program.

At Level 4, program students averaged five-months gain in vocabulary and four-months gain in comprehension. Stated another way, 71% of the students showed gains in vocabulary and 48% gained in reading comprehension skills. It is likely that the comprehension results reflect more the chance variation in scores rather than actual improvement. The reading teacher identified the pupils who did not progress as those who had a high rate of absence.

TABLE 29

ACHIEVEMENT GAIN
CALIFORNIA ACHIEVEMENT TESTS
BILINGUAL READING
SEPTEMBER, 1972, AND APRIL, 1973

Level	School	N		Grade Equivalents: Vocabulary (40 items) Form A September, 1972	Vocabulary (40 items) Form B April, 1973	Comprehension (42-45 items) Form A September, 1972	Comprehension (42-45 items) Form B April, 1973
						- 42 items -	
3	South	14	$\bar{X}$	2.8	3.9	3.9	5.0
			SD	1.3	2.1	1.1	2.1
	Lincoln	29			5.0		5.5
						- 45 items -	
4	South	21	$\bar{X}$	7.9	8.4	7.5	7.9
			SD	2.3	2.3	2.0	2.7

Student Problems

The Scholastic Testing Service "Youth Inventory" was administered to students in the Hispano-American Culture, Language, and History and Bilingual United States History classes in September, 1972. Students selected either the English or Spanish edition of the instrument, which has 167 statements reflecting matters of concern to teenagers. On a separate answer sheet, the student anonomously rated each statement as to whether it was one of his most serious problems, a moderate problem, a small problem, or not a problem. The statements rated "most serious" by 50% or more in September, 1972, and last year in November, 1971, are in Table 30.

TABLE 30

"MOST SERIOUS PROBLEMS"
AS RATED ON THE STS YOUTH INVENTORY

Statements Rated A Most Serious Problem	Percent Who Selected This Statement	
	September, 1972 N=110	November, 1971 N=63
I worry about getting good grades.	50.5	
I want to take some courses that will get me ready for a job.	54.6	65
What kinds of jobs are open to high school graduates?	53.5	
I need a part-time job.	56.2	56
What should I do after I finish high school?		57

The availability of current work and a good job after graduation were the prime concerns this year as they were last year. When the Bilingual Program started in 1969, students' main concerns centered around test taking, school work, personal problems, and acceptance by others.

Tutorial Program

The bilingual reading teacher at South Division was in charge of a tutorial program whereby high-achieving Spanish-American students were paid to help those who were having difficulty with history and English classes. There were approximately 20 tutors and 20 tutees in the program at a time. The tutees were recommended from within the Bilingual Program or were Spanish-American students outside the program who requested help. The reading teacher rated the tutoring program a success because it helped to increase the number of Spanish-American graduates threefold over 1971-1972.

There is a need, which cannot be filled now by Spanish-American students, for tutors proficient in math and science.

Follow-Up Study

An attempt was made to follow-up the 155 Spanish-American students who had left South Division High School since 1969. English/Spanish questionnaires were sent to their parents in January, 1973, at the last known address. Twelve were returned "Address Unknown". The 35 parents who returned completed questionnaires furnished the following information:

Of the 35 former students:

-- 81% were single, 16% married

-- Six percent were in the armed forces

-- 67% were employed, 75% of these full-time

-- 42% were attending school, 77% of these full-time

-- At South Division, the career counseling received was:
poor - 34% fair - 24% good - 41%

-- At South Division, the school counseling received was:
poor - 38% fair - 21% good - 41%

-- 37% said their son or daughter had seen the bilingual student advisor and that the advice was:
poor - 13% fair - 38% good - 50%

Of the 35 parents:

-- 64% reported that the Bilingual Program benefited their child

-- 53% of those whose child <u>was</u> in the Bilingual Program felt that it benefited his/her career

-- 83% of those whose child <u>was not</u> in the Bilingual Program considered it helpful to have the program at South Division High School

Although there was only a 23% response to the questionnaire, plus the

eight percent "Address Unknown" returns, those returned probably are representative of the group. A study by Larry Leslie showed that groups which are surveyed because of a common interest tend to respond as a member of the group (in this case, parents of South Division Spanish-American students). One may, under these assumptions, generalize that Spanish-American graduates had generally benefitted from the existence in the school of a bilingual program and that parents support its continuation.

Views of Bilingual Staff

Interviews with the bilingual staff revealed that:

-- Since the Bilingual Program began, a serious Spanish-American drug problem has disappeared; demonstrations and walk-outs no longer occur; and militant Anglo/Latin friction has vanished.

-- Those students who are the lowest academic achievers and in greatest need of help have a high rate of absenteeism.

-- The proportion of Spanish-surnamed students who have graduated has doubled: from 38 (8%) in 1970 to 77 (17%) in 1973 at South Division; from 10 (6%) in 1971 to 18 (14%) in 1973 at Lincoln.

-- Bilingual staff members feel somewhat isolated with their unique program. They recommended that regular staff receive inservice training in the nature of bilingual education.

-- The bilingual staff seeks the creation of a Department of Bilingual Studies within the school. This department would include Spanish for Spanish-Speaking and English As A Second Language. It would have a chairman, a budget, and policy-making power. It would coordinate the bilingual curricula, provide representation at school/principal meetings, and flexible funding.

-- Student problems are three-fold: family generation gap, with students wishing greater freedom to drive and date; economic problems resulting in insufficient food and clothing; and insufficient job opportunities to satisfy a desire for work instead of welfare.

Lincoln Junior-Senior High School

Reading

The California Achievement Test, Reading, Level 3, was administered

only once to bilingual reading program students in Spring, 1973. The mean grade equivalent was 5.1.

Views of Bilingual Staff

In interviews with the evaluator, staff members commented that:

-- Many students from Puerto Rico had been educated only through the fourth grade and were unable to do high school work.

-- The educationally-deficient or non-motivated students who need help most can't be aided adequately as they require assistance on a one-to-one basis.

-- About ten percent are below a third-grade reading level. Suitable materials are lacking.

-- The most important benefit of the Bilingual Program has been the self-confidence it has given to students, who have replaced "I can't do this" with "Show me how to . . .".

-- As a result, Spanish-American students, who never participated in school activities, now have joined the band, drill team, and cheerleaders. These groups are now 60% Latin; the school population is ten percent Latin.

-- The program should be enlarged by the addition of a tutoring program; Spanish (reading) for Spanish-speaking; bilingual math, social studies, and personal economics classes; and a bilingual counselor.

-- Elementary programs should be strengthened to prepare Spanish-American pupils for high school work.

FINDINGS: SYSTEM-WIDE

Since the inception of the pilot program, bilingual components have been requested by the parents and staffs of several Milwaukee schools having Spanish-American populations. Although each school's challenge is unique, each has been a beneficiary of materials and methods created in the pilot program.

According to their needs, the schools listed below started to offer bilingual classes in 1972-1973 or have finalized plans to initiate them in 1973-1974. Program personnel assisted in planning and in providing products developed for bilingual classes.

Allen-Field School

This school, also in the south side area, had 34% Spanish-surnamed pupils. Two half-day bilingual kindergartens were initiated. These classes were included as a kindergarten comparison group. They were taught bilingually by two teachers, one English-speaking and the other Spanish-speaking. This program offered instruction using the child's dominant language to build conceptual strength and stressed bicultural experience. A bilingual first grade will begin in 1973-1974 for those whose parents wish them to continue in bilingual education.

Cass Street School and Oliver Wendell Holmes School

Cass Street School and Oliver Wendell Holmes School started a half-day bilingual kindergarten in 1972-1973 and may add a bilingual first grade with a bilingual aide in 1974-1975.

Kagel School

One bilingual teacher will be added in 1973-1974 to serve kindergarten/primary.

Franklin Pierce School

Franklin Pierce School initiated two bilingual half-day kindergarten programs in 1972-1973 and plans to replace them with one full-day kindergarten in 1973-1974 plus a bilingual first grade.

James Whitcomb Riley School

James Whitcomb Riley School will continue to employ for 30 hours per week a Spanish-American teacher-aide as a roving helper for the staff.

Wisconsin Avenue School

The Wisconsin Avenue School, in 1973-1974, will replace a departing teacher with one Spanish-American teacher and one aide for an ungraded primary class composed of 15 Spanish-American and 15 multi-ethnic pupils.

Kosciuszko Junior High School

Kosciuszko is a feeder school for South Division High School. Hispano-American Culture, Language, and History was initiated in 1972-1973. Bilingual Reading and Language Arts will be added in 1973-1974.

Riverside High School

Riverside High School is near the northeast boundary of the city. Its student population (1,612) is 47% black. There are 59 Spanish-American students of Puerto Rican extraction, all of whom were born in the United States and speak only English at home. They were characterized as militant, lacking in self-confidence, capable but afraid to try. Half were reading at or below a fourth-grade level. Twenty-five elected the Hispano-American Culture, Language, and History course initiated this year, where they are learning to understand, speak, and read Spanish. The teacher suggested that reading should have top priority in the curriculum.

West Division High School

This central city school is 64% black and 8% Latin. The "Hispano-American Culture, Language, and History" course began this year. Bilingual United States History will be added in 1973-1974.

SUMMARY

During the 1972-1973 school year, the Bilingual Education Program served 306 pupils (95% Spanish-American) at Vieau School, Lincoln Jr-Sr High School, and South Division High School. Classes were conducted in both Spanish and English by Spanish-American teachers. The major findings at the conclusion of the fourth year of the pilot project are summarized here and in Table 31. Grade level achievement was not expected until the end of grade six, according to program objectives, because of time required to teach and learn the curriculum in both languages. Therefore, performance by Bilingual Program pupils which equals comparison group achievement would be interpreted as evidence of program success.

Standardized Achievement Tests

Readiness

Both the all-day Bilingual Program kindergarten pupils and the Allen-Field half-day kindergartens exceeded the Vieau and Kagel comparison groups on a test of readiness for first-grade work.

English Oral Comprehension

First-grade Bilingual Program pupils scored lower than Vieau comparison pupils on a listening test. Second-grade Bilingual Program pupils scored lower than the Vieau comparison group but the same as the Kagel comparison group in English listening. Vieau Bilingual Program third-grade pupils scored lower than the Vieau comparison group and the same as the Kagel group in word analysis. Bilingual Program fourth-grade pupils exceeded the performance of the comparison group on a comprehension test.

TABLE 31

COMPARISON OF ACHIEVEMENT
OF PROJECT AND NON-PROJECT GROUPS
1972-1973 EVALUATION OBJECTIVES

Category	Objective Number	Grade Level	Status of Bilingual Program groups compared with . . . Vieau Comparison	Kagel Comparison	Allen-Field Comparison*
Readiness Basic Concepts	1 2	Kgn	+ =	+ o	=
English Oral Comprehension	3	1 2 3 4	- - - +	o = = o	
English Reading	4	2 3 4	= - =	= = o	
Mathematics	7	1 2 3 4	- - - +	= - = o	
Spanish Oral Comprehension	5	Kgn-4	Taught only in Bilingual Program. No comparisons were possible. Objective achieved for comprehension. Deterioration of spoken standard Spanish.		
Spanish Reading	6		No comparisons possible. Objective achieved.		
English Reading	1	10-12	Achieved		

* Comparison made on kindergarten readiness only.

\+ Superior to comparison group
= Equalled comparison group
\- Inferior to comparison group
o No comparison made

English Reading

Bilingual Program second graders equalled comparison group pupils in English reading achievement. Bilingual third graders scored below Vieau comparison pupils and equalled Kagel comparison pupils in English reading achievement. Bilingual fourth graders scored as well as the Vieau comparison group in both vocabulary and comprehension.

Spanish Oral Comprehension

Pupil scores on a test of comprehension and usage increased by grade level from 80% to 93% correct. The ability to speak correct Spanish deteriorated over time as the spoken language became anglicized.

Spanish Reading

By the end of fourth grade, all English-dominant pupils were able to read Spanish at Level 1 or higher.

Mathematics

From first through third grade, the Vieau comparison groups exceeded the bilingual groups in math skills. The Kagel comparison group scored higher in mathematics achievement than the Vieau bilingual group at the second grade. There was no difference between the Vieau and Kagel groups in math skills at first and third grade.

The fourth-grade bilingual class scored higher than the comparison group.

English Reading, Secondary

At South Division,

-- on a Level 3 test, beginning readers of English gained, on the average,

11 months of achievement and received end-of-the-year grade equivalents of 3.9 in vocabulary and 5.0 in comprehension.

-- on a Level 4 test, continuing learners increased grade equivalents five months in vocabulary to 8.4, and four months in comprehension to 7.9.

Additional Data

Speaking Spanish, Elementary

Spanish-dominant pupils tended to anglicize spoken Spanish over time, resulting in deterioration in correct rhythm, intonation, agreement of noun and adjective gender, and use of future tense.

Behavior

Teachers and school administrators noted increased participation in school activities, decreased behavior problems, and diminished conflict between Anglo/Latin students. School staffs lost initial negativism toward bilingual education.

Graduates

The percentage of Spanish-American students who graduated and who planned to continue their education increased. Support by bilingual student advisors and the tutoring program contributed to motivation to remain in school.

Program Expansion

In response to requests of the Latin community, bilingual components were introduced into additional elementary and junior and senior high schools according to their needs.

Congruence With Previous Data

1972-1973 data compared with outcomes from previous years:

-- Pupils from Spanish-speaking homes enter school with initial deficits in basic concepts related to school work. (Confirmed)

-- Achievement of pupils in the Bilingual Program is below that of regular classes in first and second grades. (Generally confirmed)

-- Additional classroom personnel are required to handle ability groups in two languages. (Confirmed)

-- Instruction in reading in the second language should be delayed until the pupil reads fluently in his first language. (Confirmed)

-- Comprehension and speaking skills in a second language can be developed incidentally with no apparent interference with other learning. (Confirmed)

-- Students in the secondary Bilingual Program improve their English reading skills, improve communication skills in both English and Spanish, develop cultural pride, and receive counseling support for continuing education. (Confirmed)

New Findings, 1972-1973

-- Third-grade bilingual pupils did not equal or exceed the Vieau comparison group in English comprehension, reading, and mathematics as in 1971-1972. However, they were at the same level as the Kagel third graders and had, in addition, acquired second language skills.

-- Monolingual and bilingual Spanish-speaking pupils tended to anglicize their conversation and to move further away from standard Spanish.

CONCLUSIONS

The goal of the evaluation is to provide answers to the four questions regarding bilingual education. It would be presumptuous to offer definitive answers either now or at the conclusion of the pilot study in 1973-1974 for several reasons, including the following:

-- Trends emerging from the test data are fragile because of the small numbers of pupils and the large numbers of uncontrolled variables.

-- Difference of opinion marks many issues related to bilingual education and its evaluation, ranging from the advisability of segregating students in a special program to the validity of test instruments.

-- Analysis of the long-term effects of the Bilingual Program requires the passage of sufficient time for this generation of children to move into secondary school and the adult world.

-- The tentative findings tend to raise further questions. Value judgements concerning these new questions will have to be made in order to plan the future direction of the local program.

Four evaluation questions were posed in the Introduction. To conclude, the questions will be repeated and accompanied by both tentative answers and second-generation questions.

1. Does instruction in the dominant language facilitate the learning of school-related skills for Spanish-speaking pupils?

   Apparently yes at kindergarten, the start of formal education, and in high school, where many Spanish-dominant students from several schools share a collective educational deficiency. The effect on the primary/elementary years is uncertain. The questions raised include:

   How much instruction should be given in the dominant (Spanish) language?

   Should Spanish as the language of instruction be limited to the period necessary for the transfer to English?

Does further academic instruction in Spanish interfere with the progress that could be made in the regular program?

2. Does a program which emphasizes Latin-American culture improve the self-concept, learning set, and, thereby, the achievement of pupils of Latin-American heritage?

   Yes, if reduced behavior problems and increased numbers of graduates are the criteria. But does this emphasis tend to isolate Spanish-Americans from the remainder of a multi-ethnic community? Is the school or the home/community the proper agent for the transmission of culture?

3. Does a Spanish-American staff improve the self-concept, learning set, and, thereby, the achievement of pupils of Latin-American heritage?

   Yes, in designing curricula, in facilitating communication between Spanish-monolingual parents and students and school staff, in an advisory capacity. However, the quality of instruction given to Spanish-American pupils is probably not related to the ethnic background of the teacher.

4. Is it possible for pupils to learn the academic curriculum in two languages and attain grade-level academic proficiency by the end of grade six?

   The handful of upper primary and elementary pupils have demonstrated that most of them can learn the curriculum in two languages. Is this desireable? Is there a price to pay in the tension generated in attempting to teach children in two languages in the same time span normally allotted to one?

Whatever the outcomes at the end of the study, many or all of these questions will remain and new questions will arise from new data. Meanwhile, parents and educators will need to decide the future direction of the program. Given monetary constraints and a desire to serve all eligible students, they will need to choose between alternative programs (e.g., all-day kindergarten for some or half-day for twice the number) and alternative goals (e.g., bilingual education as transition or as a goal).

An outstanding characteristic of the Milwaukee Bilingual Program is its flexibility. Each school having a bilingual program has designed a variation unique to its needs. The recommendation of this report is that parents and

educators initiate a careful study of the outcomes of these programs in an effort to recommend alternative plans toward common goals for the education of Spanish-American youth.

APPENDIX A

DESCRIPTION OF NEIGHBORHOODS OF SCHOOLS HAVING BILINGUAL PROGRAMS

Data are reproduced, with permission, from Metropolitan Milwaukee Fact Book:1970. Edited by Frances Beverstock and Robert P. Stuckert. A Project of The Milwaukee Urban Observatory, the University of Wisconsin-Milwaukee and the University of Wisconsin Extension, 1972.

JUNEAUTOWN

Juneautown is an area with a split personality and a long history. In the area south of Ogden Avenue are many of the largest of the downtown commercial buildings, hotels, high rise apartments and public buildings. The past decade has seen it changed from a deteriorating area to a center of business activity and new construction. The area to the north includes many aging, deteriorating residential units. Median income was relatively low in 1970. Property values have been falling and the incidence of substandard housing has been high. This split is visible in an expressway slashing across the area. Juneautown is bounded by East Wisconsin Avenue on the south, the Milwaukee River on the west, East North Avenue on the north, and Farwell, Lyon and Astor Streets on the east.

This area was part of the land covered by the deeds recorded by Solomon Juneau and Morgan Martin in the public land office at Green Bay in 1835. In the early years of the city, rivalry between this community and Kilbourntown across the river was intense and occasionally violent.

The main traffic artery was East (now North) Water Street. The city hall was built at the north end of the street. At the south end were the Milwaukee River docks. Juneau had built a courthouse at his own expense slightly to the east and donated the land now known as Cathedral Square to the city. The construction of the Northwestern railroad depot at the east end of Wisconsin Avenue helped change the direction in which the city was developing from north and south to east and west. In 1890, Charles Pfister built the Pfister Hotel a few blocks west of the depot.

Juneautown's institutions reflect its pattern of ethnic settlement. Many of the early churches are still in existence. Yankees from New York or New England established First Presbyterian Church in 1837. St. Mary's Catholic Church was built in 1846 by a predominantly German congregation. The following year, St. John's Catholic Church was built by an Irish congregation. After the Civil War, the "Yankee" population developed the area around Kilbourn and Marshall Streets. All Saints' Cathedral and St. Paul's Episcopal Church were built here, and the neighborhood became known as "Yankee Hill." Central Milwaukee High School, the city's first, was opened in 1868 at Knapp and Cass Streets.

In the latter part of the 19th century, Polish immigrants settled north of Brady Street which was considered to be the boundary between them and the Irish for many years. The newcomers started St. Hedwig's Church in 1871. An influx of Italians gradually replaced the Irish. Brady Street is now the center of the youth or "freek" community in Milwaukee: an area of small shops, subdivided units, communal living and friction with the older residents. Real estate developers are taking advantage of the changes to obtain land for apartment construction.

The construction of a dam on the Milwaukee River near North Avenue in 1842 provided a source of water power. Cigar and barrel factories, knitting and flour mills were built to take advantage of it. Coal and lumber yards as well as tanneries found the river a convenient location because cargo boats could dock at their doorsteps. Accompanying this commercial activity, an area of flop houses and taverns grew up on the river. The early dam was washed out in 1866; a new dam was built in 1891. Business started declining after World War I, and the river is now closed to commercial traffic.

In the mid-1950's, many Spanish-speaking families moved into the area bounded by Van Buren, Knapp, State and Milwaukee Streets. The majority of them were of Puerto Rican background who came to Milwaukee as the result of labor recruiting by Milwaukee employers. This area was bulldozed in the 1960's for the construction of Juneau Village, a high rent apartment project. Financial difficulties resulted in changes in the builders' plans. Today, subsidized housing for low and moderate income families are being built in part of the area.

Due to the rapidly changing character of Juneautown, care must be taken when the statistical tables are examined. It has a high vacancy rate, but the vacancies are of two types. In the southern portion, they consist of apartments where the median monthly rent being asked is over $185. In the northern part, the corresponding figure is less than $85. There are virtually no vacant units for sale. Its diversity can be seen in its racial mixture, which includes both blacks and Indians, and its age distributions which include high proportions of both young and old adults.

WALKER'S POINT

Walker's Point is bounded by West Pierce Street on the north, South First Street on the east, West Becher Street on the south, and South 23rd Street on the west. Early maps of the area show a point of land jutting out into the marshy Menomonee River on which is shown the cabin of the first settler, George Walker. Gradually, Walker platted the area and reserved a public square as a gift to the citizens of the area. In 1845, Walker's Point was added to the village of Milwaukee as the South Ward.

The earliest ethnic group to settle in Walker's Point was the Scandinavians. Arriving in the 1840's, many of them found employment in shipping, either aboard ship or in the shipyards and docks. The Scandinavian Evangelical Lutheran Church was formed in 1852. A few years later, the Norwegian Evangelical Lutheran congregation separated from the parent congregation and built its own church. Both subsequently moved to larger quarters outside the area.

In the 1870's and 1880's, South Third Street (then Hanover Street) was the home of many German-born civic and social leaders in Milwaukee. German-speaking Catholics attended Holy Trinity Roman Catholic Church at South 4th and Bruce, a congregation which had broken off from Old St. Mary's Church in Juneautown in 1849. German-speaking Lutherans formed St. Stephen's Lutheran Church, an offshoot of Trinity Lutheran Church in Kilbourntown.

Many of the first Jewish families to arrive from Russia in the late 19th century settled in Walker's Point. Temple Sinai was located at South 9th and Mineral from 1900 to 1915.

Many persons living on the South Side today are of Polish Ancestry. Walker's Point was the area of first settlement for many of the immigrants arriving at the Reed Street Station in the last third of the 19th century. St. Stanislaus Roman Catholic Church on South Sixth and Mitchell was founded in 1866, the first urban Polish Catholic parish in this country. As more immigrants arrived, other Polish Catholic congregations were started as missions by St. Stanislaus. It was said that at one time Bismarck Avenue (now South 15th Place) was the dividing line between the Polish and German neighborhoods on the South Side.

The most recently arrived ethnic groups are Spanish-speaking. During World War I, Mexicans were brought to Milwaukee as laborers by International Harvester and Illinois Steel. The Catholic Church began a Mexican mission, Our Lady of Guadalupe, on South Fifth Street. In 1967, the congregation merged with Holy Trinity Catholic Church and today both English and Spanish services are held. In the 1950's, workers were recruited in Puerto Rico by several south side plants and foundries. Some of these families settled immediately in Walker's Point while others moved to this area from Juneautown after their homes were torn down for an urban renewal project. In addition, American Indians have lived here since World War I.

The first high school on the south side was built at the request of parents who did not wish to send their children across the Menomonee River. In 1894, South Side High School, Milwaukee's second high school (now South Division) was completed at South 13th and Lapham. Boys Trade and Technical High School on South 4th Street was originally sponsored by the Merchants and Manufacturers Association in 1904. A few years later, it became part of the Milwaukee public school system.

The E. P. Allis Company, forerunner of the Allis-Chalmers Corporation, manufactured parts for flour mills in a plant at South First and West Florida Streets. It moved to West Allis at the turn of the century. Allen-Bradley is now the biggest employer in Walker's Point. Beginning in 1920, the Chicago and Milwaukee North Shore Interurban ran along South Sixth Street from its depot at Michigan to downtown Chicago. It was discontinued at the end of the 1950's as business dropped off. The north-south freeway now runs through Walker's Point.

Walker's Point is a deteriorating area of the city today. Surveys by the city indicate that it has the second highest concentration of blight in Milwaukee. The incidence of substandard housing is high. The population has dropped 40 percent since 1950 while the number of housing units has decreased 27 percent. Much of this was due to freeway construction. In 1964, an urban renewal plan was drawn up to develop the Boys Tech area as an industrial area. After much discussion, the project was shelved. The UWM School of Architecture has proposed a plan for revitalizing the shopping area along Mitchell Street from South 5th to South 14th Street. This has been the traditional shopping area for Walker's Point residents for over 50 years.

APPENDIX B

METHODS, MATERIALS, AND OTHER INFORMATION ABOUT BILINGUAL PROGRAM AND COMPARISON CLASSES: TEACHER REPORTS

KINDERGARTEN

KINDERGARTEN GROUPS, 1972-73

	Bilingual	Vieau Comparison	Kagel Comparison	Allen-Field Comparison
Number of Teachers	1		1	1 monolingual, Eng; 1 bilingual Span and Eng
Number of Aides	1 aide plus 2 part-time seventh grade tutors	½	¼	1 bilingual, Span and Eng
Number of Pupils	22	27 a.m. 28 p.m.	25 a.m. 25 p.m.	22 a.m. 19 p.m.
Pupil Characteristics	Last year's Head Start pupils had more skills. This year's are same as other pupils. Entire group is slower than last year's.	Six are Spanish monolingual.	Three speak Spanish at home and are mostly non-verbal at school.	All are now bilingual.
Family Characteristics		Children are trained to be quiet in school making it difficult for teacher to encourage response for language development.		
Special Services:				
Bilingual Reading Center			None	
Reading Center				
Guidance		2		
Psychological Services		8		
Motor Development	6	2	6	
Speech Therapy	Some			1
Wings				
ESL			2	
Language Development		8	5	

KINDERGARTEN GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
English Language Arts	V_X	Peabody Kit, Sesame Street Magazine, calendar	Two groups, English-dominant and three bilingual; general concepts	Teacher test	None
	V_C	Pictures, charts, Peabody Kit, emotion charts	Fifteen-minute daily conversation period to increase vocabulary and use of sentences and overcome shyness.	Four of six Spanish monolinguals are making good progress according to teacher.	Pupils' vocabulary is very limited - eliciting response from pupils trained to be quiet.
	K_C	Frostig Program, Weekly Reader, story books	Whole group engages in role playing, finger play, and creating stories.	Metropolitan Readiness Tests (City-Wide Test Program)	Pupils are non-verbal on entering kindergarten, especially where Spanish is spoken at home.
	AP_{Bi}	Millikin "Look and Listen" kit and MPS kindergarten curriculum SCDC language, headsets	Stress is on concept development; small and large groups and individuals.	All pupils are now bilingual.	Pupils are non-verbal on entrance.
English Reading Readiness	V_X	Flannel board, calendar	Teaches concepts, reading skills, and position (left/right)		
	V_C	Flannel board and pictures, "Activities Handbook for Teachers of Young Children"	Pupils tell stories about pictures; teacher reads to them.	Teacher observation	Would like to teach cooperatively with bilingual kindergarten.
	K_C	Materials suggested by language development teacher, alphabet cards, initial letter sounds	Copying alphabet, manuscript printing	Metropolitan Readiness	

KINDERGARTEN GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
English Reading Readiness (Cont'd)	AF_{Bi}	Milton-Bradley Reading Readiness Kit; Economy Co., "Keys to Learning", Peabody Kit; some of Pre-Reading Skills Program, University of Wisconsin, language master, small groups; filmstrip previewers (bilingual filmstrips); alphabet bingo	Small groups according to level of concept formation	Teacher Observation Kit follow-up work	Non-verbal character of children
Spanish Language Arts	V_X	Peabody Kit, SCDC Fine Arts Calendar	Three groups: four English-dominant, eight Spanish-dominant, three bilingual	Teacher-made test	
	V_C	Spanish books from library	P.M. aide reads Spanish books to Spanish pupils	Teacher observation	None
	K_C	None			
	AF_{Bi}	MPS curriculum (translated); Singer Society for Visual Education filmstrips, Laguna Language Series, SCDC material; teacher-developed material for basic concepts, colors, numerals, shapes and letters; color and shape bingo; filmstrip previewers, Millikin "Look & Listen", translated parts of it	Small groups; Weekly Reader (both languages)	Observation and review (e.g., games); Boehm Basic Concept; Metropolitan Readiness (administered in Spanish to those who need it)	None
Spanish Reading	V_X	Sesame Street Magazine (one per child), flannel board	Teaches concepts left to right, etc.	None	None
	V_C	Not taught			
	K_C	Not taught			

KINDERGARTEN GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Spanish Reading Readiness (Cont'd)	AF_{Bi}	Spanish color and shape words and numerals, SCDC Language Arts Strand, Pre-reading Skills when adaptable, Milton Bradley Reading Readiness Kit (adaptable parts: i.e., pairs, etc.)	Groups	Observation	None
Mathematics	V_X	Addison-Wesley Primer, Sesame Street Calendar, objects	Seven use English workbook; ten middle ability are taught in English; five of six slowest pupils are Spanish-dominant.	Teacher tests individually.	None
	V_C	Addison-Wesley math chart, flannel board, beads and pegs	Counting, sorting, and chart work in group - individual help	P.M. aide repeats math lesson in Spanish for Spanish-dominant. Teacher checks worksheets.	No text or workbooks
	K_C	Calendar, Addison-Wesley Primer, flannel board, teacher-made numeral charts, games	Group work in writing digits, matching, manipulative work, set work. Uses chalk board. Fifteen to 30 minutes/day.	Metropolitan Readiness	
	AF_{Bi}	Addison-Wesley Primer in English/Spanish; three-dimensional materials	Large group, English (total group); small group, Spanish (Spanish-dominant), N=4	Workbook and worksheets	None
Science	V_X	As stated in Bilingual Program objectives	Group teaching in English or Spanish	Teacher asks questions	None

KINDERGARTEN GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	- EVALUATION	PROBLEMS
Science (Cont'd)	V_C	Language development materials, films, and stuffed animals from Museum; library books and film strips; "Early Years" Magazine	Study calendar seasons, magnet's seeds, animals; take nature hike.	Observation	None
	K_C	Teacher-made materials	Topics: seasons, senses, animals, weather; plants - kind and how they grow; magnets		
	AP_{Bi}	Teacher-developed; topics: weather, nature, Science Table, planting, MPS curriculum used in both languages	Total group	None	None
Social Studies	V_X	Peabody cards, field trips	Two groups. English and Spanish language; topics: community, family, school		
	V_C	Provided by teacher	Topics: community helpers, fire station, children from other countries		
	K_C	Teacher-developed program	Group study of Eskimos, Indians, Presidents, holidays		
	AP_{Bi}	Topics: home and family, selves, health, city, and community	Large group	None	None

KINDERGARTEN GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Arts	V_X	SCDC Fine Arts Strand	One group; songs and games in Spanish	SCDC test, February	Need more cutting, pasting, painting, crayoning
	V_C	Anything available (e.g., sand paper paintings)	Cut and paste as part of all other work - structured sessions on "how to"	Observation	None
	K_C	Games, music, books	Uses art and music as a major activity related to curriculum		
	AP_{Bi}	SCDC Fine Arts Strand, art activities related to program; also, music	Total group	Observation	None
Field Trips	V_X	Hawthorne Glen nature trip, pumpkin farm, Museum	Goes with regular kindergarten or first grade		
	V_C	Same as above plus Childrens' Hospital	Joins with bilingual kindergarten		
	K_C	Trips to zoo, Museum, fire department, supermarket, and walks			Insufficient bus fare
	AP_{Bi}	Four per year: zoo, fire station, bakery, nature hike, Pottero Forest	Joins another class		None

FIRST GRADE

GRADE 1, LOWER PRIMARY GROUPS, 1972-73

	Bilingual	Vieau Comparison	Kagel Comparison
Number of Teachers	2	1	1
Number of Aides	1	2 part-time	1 Spanish-speaking
Number of Pupils	31	29	31
Pupil Characteristics	Better prepared this year due to all-day kindergarten in 1971-72	Four speak Spanish at home, English at school	Former Head Start pupils demand much individual attention
Family Characteristics	Transient - move often, even within city Many mothers work as domestics.		Low mobility; high absence (children kept at home in bad weather), affects work
Special Services:			
Bilingual Reading Center			
Reading Center		1	
Guidance			
Psychological Services			
Motor Development			
Speech Therapy		2	
Wings			
ESL			1
Language Development		7 (Semester 1 only)	8

GRADE 1, LOWER PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
English Language Arts	V_X	Ginn & Company: "Look and Listen", "Learning About Sounds and Words", "My Sound Book", "My Word Book"	Eighteen English-dominant pupils are taught in five skill-level groups.	Teacher testing	Pupil absence; four pupils immature - not ready for first-grade work.
	V_C	Dictionary; Weekly Reader; Peabody Kit; variety materials	Three groups by skill level, daily phonics lesson; Weekly Reader, entire group; aide helps individuals.	Oral tests, teacher judgement; written tests	Lower group is very slow and does not hear sounds.
	K_C	Teacher-gathered materials	Group as a whole, 15 minutes per day; pupils learn to print letters.	Teacher observation and daily phonics worksheet	Would like to use Initial Teaching Alphabet which involves writing.
English Reading	V_X	Semester 1: Five pupils used MacMillan Bank Street pre-primers Semester 2: Ginn 100 Series; Houghton-Mifflin, MacMillan Series, Harcourt Brace	Group as a whole, 15 minutes per day; pupils learn to print letters, English-dominant pupils.	Teacher tests	
	V_C	Follett Series; charts; basal readers; enrichment series	Eight pupils in one readiness group; two groups at Level 3; one large group at Level 4; two students at Level 5	Aide listens to individual pupil read; teacher evaluates individually with questions	Delay in receiving book order; slow progress; too many groups to fit into schedule
	K_C	Basal Reader, Scott-Foresman Company	Four groups, 25 minutes per day per group, all at Level 3	Teacher listens to reading; pupils take tests at end of workbook; independent books are read to aide.	Basal reader is better than the MPS Curriculum Guide Program; need listening series.

GRADE 1, LOWER PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Spanish Language Arts	V_X	English-Dominant Pupils: SCDC kits; Economy Company Language Development Cards	Seven English-dominant have Spanish as a Second Language; seven bilingual have oral Spanish.	Assessment by teacher at end of each SCDC kit	**Lack of follow-up materials on skills that reenforce what is taught**
		Spanish-Dominant Pupils: SCDC Spanish Language Arts	Thirteen Spanish-dominant are in three ability level groups.	Assessment by teacher at end of each SCDC kit	High absence; pupil immaturity
	V_C	Not in curriculum			
	K_C	Not in curriculum			
Spanish Reading	V_X	"Preparándose Para Leer", Houghton-Mifflin; SCDC materials; "Tito", Economy Publishing Company; **Carascolendas Manual**	Seven pupils in one reading group; six pupils in two readiness groups	Pupils read teacher-made stories.	Lack of high-quality commercial materials
	V_C	Not in curriculum			
	K_C	Not in curriculum			
Mathematics	V_X	Objects, beads, abacus; Addison-Wesley, Level 1; SCDC for slower Spanish-dominant group	Three to five groups divided according to language dominance and ability	Teacher-made tests; Addison-Wesley Unit and Review Tests	Lack of concrete objects for manipulation; workbooks are used to supplement materials.
	V_C	Addison-Wesley, Level 1; **flannel board; math games; duplicating masters**	Two ability groups	Math papers are collected daily; good students work with slow students.	None

GRADE 1, LOWER PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Mathematics (Cont'd)	K_C	Addison-Wesley, Level 1	Whole group four days per week, 30 minutes per day	Teacher tests	None, program is good because it is structured.
Science	V_X	SCIS Program is activity-oriented	Entire group in English and Spanish	Uses in-class test items	SCIS guide in Spanish would be helpful.
	V_C	MPS Science TV Show once a week; Weekly Reader, science section; teacher-devised curriculum	Group discussions	None	Lack of materials
	K_C	No specific materials	Pupils may select science as one of a choice of activities on Tuesday afternoons.	None	None
Social Studies	V_X	SCDC Program, Voices of Creatures, Seven Stories for Growth	Entire class twice a week (total, 1 1/3 hrs.)	None	There seems to be a lack of continuity from one grade to another as to what is taught, re-enforced, etc.
	V_C	MPS curriculum guide; library books, kits, film strips, and records	Class as a group studies family and community helpers.	Manipulative (three-dimensional objects) test	Lack of sufficient time
	K_C	Not in curriculum			

GRADE 1, LOWER PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Arts	V_X	SCDC Program; Silver-Burdette music book; art materials; plays; cassettes for music	Entire class three times per week (total, 1 hour); emphasis on Spanish culture	SCDC assessment	
	V_C	Music three times per week; art once a week; Central Office supervisory help	Group works in singing, reading notes, and rhythm instruments. Mixed media art	None	Lack of art materials
	K_C	For art, anything which is on hand; music teacher	Entire group has art once a week; music three times per week.	None	None
Field Trips	V_X	Two trips to the ballet, "Cinderella"; a pumpkin farm; Planetarium; Green Meadows; Jackson Park; O'Hare Airport; Southridge; Grant Park; and a dairy farm	Entire class as a group	Teacher uses experience charts. The variety of field trips gave us an opportunity to recommend the better ones.	Need for funds for more field trips
	V_C	Walk to fire station; circus	Group activity with preparation and follow-up activities in room	Oral quiz, art and written work	Lack of funding for buses
	K_C	Trips for farm, zoo, museum, and library			

SECOND GRADE

GRADE 2, MIDDLE PRIMARY GROUPS, 1972-73

	Bilingual	Vieau Comparison	Kagel Comparison
Number of Teachers	1	1	1
Number of Aides	1	2 (2 hours each per day, a total of 20 hours per week)	½
Number of Pupils	23 (7 Spanish monolingual)	24	31
Pupil Characteristics		Majority are Spanish-American English monolinguals; a few are bilingual.	All speak English; 18% turn-over
Family Characteristics			Very few new arrivals; most families are "Americanized".
Special Services:			
Bilingual Reading Center	18	0	
Reading Center		24 (30 minutes each per day)	
Guidance	4 (Spanish-dominant)	4	6
Psychological Services	4	4	Some for testing
Motor Development	1	4	
Speech Therapy		1	
Wings			
ESL			
Language Development			

GRADE 2, MIDDLE PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
English Language Arts	V_X	MPS Curriculum Guide; Ginn Guides; Peabody Kit; teacher-made materials; phonics books - Ginn	Three groups 20 minutes per day each; Semester 1 team teaching with Grade 3X and 2C not helpful; two pupils go to 2C for English.	Teacher reviews papers, has individual conferences with pupil, then pupil corrects errors.	Four Spanish-dominant are at readiness level.
	V_C	Dictionary; Weekly Reader; tape recorder; stories; poems, choral speaking; Electric Company TV; library	Whole group or small groups 30 minutes per day; includes creative writing	Teacher observation, test on dictionary abilities	None
	K_C	School phonics program, materials provided by teacher	Entire group or reading level groups	Teacher checks papers	None
English Reading	V_X	Follett Series and Ginn 100 followed by Ginn 360; independent reading library books, "Reaching Up"	Six groups, readiness through Level 8, 35 minutes per day	Teacher listens, checks words missed, and asks questions about story. If in doubt, uses test or has Bilingual Reading teacher test pupil.	Pupils entered below grade level and ability levels. Spanish-dominant are at readiness levels - materials not available.
	V_C	Follows MPS Curriculum Guide; variety of books; phonics daily	Six groups, Levels 4-9; teams with bilingual upper primary teachers (sends 12, receives 9); works with Reading Center teacher	Oral and written tests	None
	K_C	Scotts-Foresman Readers and Workbooks, Levels 3-8	Five reading groups; one pre-primer group	Pupils read aloud for teacher; tests.	None

GRADE 2, MIDDLE PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Spanish Language Arts	V_X	"Quiero Leer", Bachuller, A. and Quecedo, D.; "Bibliografica", Santiago y Rodriquez, S.A.; "Cartilla Fonetica"; SCDC materials; Peabody Kit	Twenty-one pupils in seven achievement groups Two pupils have Spanish as a Second Language.	Teacher observation	Lack of books for initial levels
	V_C	Not in curriculum			
	K_C	Not in curriculum			
Spanish Reading	V_X	Laidlaw Series; SCDC; "Habia Una Vez" (after Level 6); library books; records and books by Walt Disney	Six groups 30 minutes per day	Teacher listens to students read to check fluency and other skills.	Lack of published materials at readiness levels; wide ability range of pupils
	V_C	Not in curriculum			
	K_C	Not in curriculum			
Mathematics	V_X	Addison-Wesley, English and Spanish, Levels 1 and 2	Seventeen in Level 1, six in Level 2, 30 minutes per day; individualized teaching; reteaches skills missed by large number	Addison-Wesley unit tests	Text is too difficult.
	V_C	Addison-Wesley Book 2	Three ability groups and drills 25 minutes per day	Tests	None

GRADE 2, MIDDLE PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Mathematics (Cont'd)	K_C	Addison-Wesley Book 2	Entire group 30 minutes per day and practice work	Tests once a month	
Science	V_X	SCIS material, Objects and Systems and Interactions	Group as a whole twice a week; teaches bilingually	Pupils make booklets and illustrate experiments.	Insufficient materials and insufficient time
	V_C	Various texts suggested in MPS Curriculum Guide	Total group three times per week, experiments	Quizzes	Lack of science materials
	K_C	Pupils may select two classes from art, physical education, science, language arts, one day per week			
Social Studies	V_X	Bilingual curriculum objectives as guide; topics: seasons, comparison of United States, Mexico, and Puerto Rico	Group as a whole twice a week	Teacher evaluation of pupil booklets	None
	V_C	MPS Curriculum Guide; maps; topics: family and community	Group as a whole four times a week	Oral questions, tests on map reading	None
	K_C	Included in the reading program			

GRADE 2, MIDDLE PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Arts	V_X	Uses materials at hand for art; resource teacher teaches music; also uses records.	Has monthly projects	None	Insufficient time
	V_C	MPS "Art for You" Program; teacher ideas	One art project per week		Some TV programs are too difficult
	K_C	Uses materials on hand for art	Art once or twice per week		
Field Trips	V_X	Attended "Cinderella" at Performing Arts Center, Cave of the Mounds, Capitol Building, Madison Museum, Chicago, Green Meadows Farm, Mitchell Park	Group travelled via bus	None	Funds were allotted at the end of the year
	V_C	Two per year, circus and farm	Class as a whole	Oral discussion, charts, etc.	Lack of funds
	K_C	Trips to farm, library, museum, Mitchell Park	Class walks to some places. Pupils bring bus money when needed.		

THIRD GRADE

GRADE 3, UPPER PRIMARY GROUPS, 1972-73

	Bilingual	Vieau Comparison	Kagel Comparison
Number of Teachers	2	1	1
Number of Aides	1.5	0.5	0.5
Number of Pupils	30	25	34
Pupil Characteristics	Five were Spanish monolingual when they came in. They can now understand a lot of English and speak some. Three more are in the fourth grade; ten who were Spanish-dominant on entrance are now fluent in English.	All except five are Spanish/ English bilingual.	One-third are Spanish-surnamed and bilingual.
Family Characteristics			
Special Services:			
Bilingual Reading Center	12		
Reading Center		2	
Guidance	4	2	4
Psychological Services	1		
Motor Development	2		
Speech Therapy	2	1	2
Wings			
ESL			
Language Development			

GRADE 3, UPPER PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
English Language Arts	V_X	Spanish-Dominant: "English Around the World", Scott-Foresman, Levels 1 and 2; guide, cards, posters Bilingual: Peabody, Level 2 "Basic Goals in Spelling", McGraw-Hill, Level 2 Composition; listening; informal writing skills	Team teaching with bilingual Grade 2 four times per week for 30 minutes, two groups, aide and teacher Thirty minutes two times per week, one group Thirty minutes four to five times per week, three groups Creative writing 30 minutes per week, whole group	Teacher observation and seat work	Lack of time; difficulty with listening of skills hampers spelling
	V_C	Teacher-devised	Entire class	Review of seat work	
	K_C	Library books	Entire class three times per week; emphasizes creative sentences	Teacher listens to pupils and reviews written work	
English Reading	V_X	Spelling-Learning Games, Lyons and Carnahan Ginn 100 and 360, and Word Enrichment Program Levels 5-9, Individualized Reading Kits, Scholastic Map, Inc.; Bill Martin tapes	Team with regular third grade Levels 5-9, groups and individual; Levels 7-8, one group One hour per day	Ginn tests, worksheets	
	V_C	MPS reading chart books; SRA Kit; practice readers	Four groups 30 minutes per day; three slow readers individually, Levels 5-12	Teacher observation	Time required for slow readers

GRADE 3, UPPER PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
English Reading (Cont'd)	K_C	MacMillan Series, Levels 8-11	Four groups three to four times per week; one bilingual on Level 4 has reading in second grade	Teacher listens; aide works with individuals	
Spanish Language Arts	V_X	"Mi Cuaderno de Español", MacCrae, for bilingual All: "Mi Libro Magico", phonetics English-Dominant: Spanish as a Second Language with bilingual Grade 2	Thirty minutes two times per week	Teacher observation; review of seatwork	
		Composition; listening; informal writing skills	Thirty minutes per week	Check of in-class test items	Lack of time
	V_C	Not in curriculum			
	K_C	Not in curriculum			
Spanish Reading	V_X	Laidlaw Reading Series; SCDC Readers; "Preparandose Para Leer" (picture cards); Buenos Amigos - Elenay Dani	Grouped by level, 1-10, one hour per day; includes spelling; four pupils are not in Spanish reading.	Observation; listen to pupil read worksheets	Few materials are available for low level independent materials; manuals are inadequate
	V_C	Not in curriculum			
	K_C	Not in curriculum			

GRADE 3, UPPER PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Mathematics	V_X	Addison-Wesley Levels 1-2-3, Spanish and English editions; games	Six groups (four bilingual and two Spanish) by level and language, 30 minutes per day	Addison-Wesley Unit Tests and seat work	Addison-Wesley program is too difficult.
	V_C	Addison-Wesley Level 3; flash cards; games	Whole class one hour per day	Teacher-made worksheets	Text reading problems are too difficult.
	K_C	Addison-Wesley Level 3; games	Entire class daily and individual help; board work; use of three-dimensional objects for discovery of relationships	Worksheets	
Science	V_X	SCIS, Interaction and Systems	Thirty minutes two times per week Lessons are followed by discussion and experimentation in two groups (English and Spanish).	Teacher observation; discussions	
	V_C	Teacher-made units and reference materials, "Prove It"	Entire class two times per week; experiments on water and air Pupils keep folders.	Teacher check of folders; oral test; pupils evaluated on reaction to experiments and cooperation.	Need for audio/visual materials
	K_C	MPS telecast curriculum	Entire group two times per week; electricity, birds, plants; teacher-made quiz games	Informal	

GRADE 3, UPPER PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Social Studies	V_X	"Towns and Cities Kit", Field Publications (filmstrips, records, and book); film strips	Thirty minutes two times per week; two groups, Spanish and English; follow objectives for Milwaukee communities	Discussion and activities	Late arrival of materials; lack of reading materials at this level
	V_C	"Weekly Readers"	Entire group once a week		Need for text and other materials
	K_C	Teacher-supplied materials and library book; no formal program as books are too difficult	Talk about community		
Arts	V_X	Mixed media for art; MPS music program; dancing related to Mexican and Puerto Rican culture	Art: Entire group two hours Friday and ongoing activity Music: 30 minutes two times per week, English and Spanish	None	None
	V_C	Music: Text and song books	Art once a week, projects related to events of month; music once or twice per week	None	None
	K_C	Art Music	Once a week Three times per week		

GRADE 3, UPPER PRIMARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Field Trips	V_X	"Cinderella", zoo, Cave of the Mounds, Hawthorne Glen, Green Meadows Farm			
	V_C	Forest at Whitnall Park			Lack of funds for bus; would like more trips
	K_C	To library and museum			Lack of funds for bus

FOURTH GRADE

GRADE 4, ELEMENTARY GROUPS, 1972-73

	Bilingual	Vieau Comparison	Kagel Comparison
Number of Teachers	1	1	1
Number of Aides	1	0.12	.10
Number of Pupils	19	27	32
Pupil Characteristics	Three of 19 are upper primary students (Grade 3); these three have reading with regular fourth-grade class.	All except two are Spanish-surname and bilingual. Most speak Spanish at home. Five have reading in bilingual fourth grade.	One Spanish monolingual returned to Puerto Rico.
Family Characteristics			
Special Services:			
Bilingual Reading Center			
Reading Center		6	3
Guidance			
Psychological Services			
Motor Development			
Speech Therapy		2	
Wings			
ESL			
Language Development			

GRADE 4, ELEMENTARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
English Language Arts	V_X	Grade 4: "The MacMillan English Series, Grade 4" Grade 3: Peabody Kit	Thirty minutes three times per week Three times per week	Textbook tests	Book doesn't give enough practice and is boring.
	V_C	MacMillan English Series, Grade 4; "Basic Goals in Spelling"; penmanship	Dramatics; entire class and individual help; writing exercises; pupils take turns reading and discussing before writing; writing stories and poems	Exercises and tests; repeats what has not been learned; oral question and answer periods; spelling exercises and tests; improvement of penmanship	Pupils need much assistance in following directions.
	K_C	MacMillan English Series	Entire class daily	Test at end of unit	Pupils have difficulty writing paragraphs.
English Reading	V_X	Ginn 100 and 360; independent reading materials	Daily, four groups; teams with regular fourth grade (takes Spanish-dominant and sends third graders)	Teacher evaluation; Ginn 100 and 360 tests	Spanish-dominant beginning readers enter with poor reading skills
	V_C	Ginn 100, Levels 8 and 9; charts, records, chalk board; supplementary duplicated material	Daily, three ability groups; English Language Arts and reading studied all morning three days per week; teams with bilingual fourth grade	Teacher listens to each child read every day and discusses story with each; also tests.	Pupil inability to follow directions
	K_C	Basic Reader, Levels 9 and 10, Scott-Foresman and workbook	Three groups by level	Teacher listens to pupils read and talks about story; also tests.	Difficulty in sounding out words phonetically

GRADE 4, ELEMENTARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Spanish Language Arts	V_X	Title VII guidelines for Spanish and mathematics, and teacher-made curriculum	Two groups, Spanish-dominant and English-dominant	Teacher evaluation by listening for comprehension	Lack of time
	V_C	Not in curriculum			
	K_C	Not in curriculum			
Spanish Reading	V_X	Basal Readers, Laidlaw; two other books - Rosita and Juanito, Cultural Centroamericana S.A.	Four groups, Levels 3-9, daily	Teacher listens to pupils read; teacher-made tests	Lack of some intermediate level materials for independent reading
	V_C	Not in curriculum			
	K_C	Not in curriculum			
Mathematics	V_X	Semester 1: Addison-Wesley Book 3 Semester 2: Book 4 for fourth grade	Two groups by grade level, daily; teaches bilingually	Teacher-made tests; tests from Addison-Wesley	Book is too hard, moves too fast, is too abstract. Word problems are difficult.
	V_C	Addison-Wesley Book 4; emphasizes addition, subtraction, multiplication, and division; Elementary School Math, Book 3; Mental third book	Work in groups at board; grade own papers and review mistakes, teacher then rechecks	Teacher inspects written work, gives oral and written tests; observation of small groups	Most pupils have no trouble in math except with reading problems.
	K_C	Addison-Wesley Level 4	Entire class daily	Tests; drill on basic facts: addition, subtraction, multiplication, division	Weak in problem-solving and basic facts, multiplication and division

GRADE 4, ELEMENTARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Science	V_X	SCIS Semester 1: Interaction and Systems Semester 2: Subsystems and Variables	Once a week for 1¼ hours; teaches bilingually	Teacher-made tests	No time for life cycles in science; workbooks are not available - should be ordered; kits came in late - it was impossible to be taught in Grade 4, should be taught in fifth grade until they catch up
	V_C	"Today's Basic Science", MPS text; MPS Science TV Program; library materials; encyclopedia; dictionary	Follows MPS science curriculum; oral discussions, experiments, films, field trips, defining terms	Observation of childrens' experiments; oral and written tests; written exercises	Text is too difficult; not enough science material
	K_C	Study of rocks and minerals and simple machines; animal adaptation; plant life; nutrition	Science is taught by another teacher.	Tests	
Social Studies	V_X	Wisconsin Design, study of Wisconsin factories and products; Grade 4 has text.	Three times per week; teaches bilingually; second semester Grade 3 will study Milwaukee	Tests at the end of chapters	Grade 3 has no materials.
	V_C	"Exploring Wisconsin" text; study current events and community; reference books, films, maps	Daily current events period; entire group two times per week; discussion follows reading; map reading; play	Tests at end of lesson; locating items on map; observation of childrens' concept of selves, peers, environment	None
	K_C	"Living Together Around the World"; TV show about Wisconsin	Study foreign countries once a week; life in hot-wet lands, hot-dry lands, cold lands, low lands, mountains	Test at end of unit; projects; shadow boxes	

GRADE 4, ELEMENTARY GROUPS, 1972-73

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Arts		Art	Entire group twice a month for two hours		
	V_X	Music	Thirty minutes four times per week with Bilingual Resource Teacher		
		Art (coordinated with subjects, field trips, special events and seasons)	Different types of music; group art at intervals, often during p.m. activity period	Children's works and interest; observation	
	V_C	Music (records and book)	"Growing with Music" twice a week; pantomime, singing, rhythm, records		
		Art	Once a week		
	K_C	Music	With music teacher twice a week		
Field Trips	V_X	City tour, planetarium, Folklorico, Green Meadows Farm, Cave of the Mounds, Chicago Museum			
	V_C	Circus, shopping trip	Discussion	Wrote stories, made pictures, research on animals	Lack of funds for more trips
	K_C	Greene Museum, zoo, Mitchell Park domes			None

BILINGUAL READING RESOURCE TEACHER

VIEAU BILINGUAL READING RESOURCE TEACHER

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Non-English Readers		"Merrill Linguistic Readers", Charles E. Merrill Publishing Co., pictures; "Learning Games Kits", "Instant Readers" with tape cassettes, Holt, Rinehart, and Winston, Inc., "Phonics We Use"	Twelve Spanish-dominant pupils, nine of whom are newly-arrived 5th, 6th, and 7th graders. Individualized instruction or groups of two to six; 30 minutes per day, four days per week; games used for initial consonants, nouns, and verbs	Informal tests on structures covered	**Merrill Readers are not interesting to pupils in Grades 5, 6, and 7. Need beginning readers relevant to older pupils.**
English Readers		"Reading Skills", The Bookmark Reading Program, Harcourt, Brace, and World; "Durrell-Phonics", Harcourt, Brace, and World; Ginn 100; Ginn 360; "Phonics We Use", "Learning Games Kits"	Thirty bilingual pupils, Grades 1 to 4; individualized instruction in groups of six for 30 minutes per day Phonic workbooks uses associated independent activities to reinforce skills with materials not used in the classroom.	Tests which accompany materials	None
Spanish Reading		Four pupils (Spanish-dominant); readiness, "Serie Nueva des Libros de Texto", Cultural Centroamericana, S.A., Talleres Gráficos de Editorial Vasco Americana, S.A., Bilbao, Spain	Uses with accompanying workbook	None (pupils are in readiness)	Lack of tests for Spanish reading for middle reading levels

SOUTH DIVISION HIGH SCHOOL

BILINGUAL EDUCATION PROGRAM, SOUTH DIVISION HIGH SCHOOL

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Bilingual Reading (Grades 10, 11, and 12; started 1970)		Textbooks used in other classes; remedial exercises for specific skills	One hundred twenty-five pupils daily in five classes and one special help period; individualized instruction in English reading and writing; advanced Spanish reading Teacher is assisted by one half-time aide and five UW-M volunteer students each serving five hours per week.	Pre-post test on California Reading Tests, Levels 3 and 4; oral and written questions on comprehension Newly-arrived read a book and write a report in Spanish.	Poor students seldom attend school. Need more aides. Bilingual, Spanish, and ESL classes should form a bilingual department with a common budget. Need materials to improve Spanish reading of students near grade level in English reading.
Hispano-American History, Language, and Culture (Grade 10; started 1969)		Bailey and Cruz, "The Latin Americans"; Greco and Bacon, "The Story of Latin America" (for slow learners), Marbán, "El Mundo Iberamericano", Simon and Schuster	Two classes per day; one-third (recent arrivals) work in Spanish; teaches bilingually Most students understand both Spanish and English. Semester 1: History of Latin America Semester 2: Mexico and Puerto Rico in depth	Based on tests, homework, class participation, written reports, attendance	Lack of bilingual materials; insufficient time for research to prepare curriculum materials; need aide for secretarial work; desks should be movable.

BILINGUAL EDUCATION PROGRAM, SOUTH DIVISION HIGH SCHOOL

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Bilingual United States History (Grade 11; started 1970)		Abramowitz, J., "American History Study Lessons", Follette Educational Corp. (a series of workbooks, nine translated into Spanish by MPS); Krownsler and Frizzle, "Discovering American History", Holt, Rinehart, and Winston (for advanced students)	Taught 50% English, 50% Spanish; tutors are available; emphasizes Spanish heritage, history of Southwest, and contemporary scene Spanish lessons have been recorded on tape and are used for tutoring.	Tests for content, interpretation of maps and charts, and inference; also, workbooks	High absenteeism; physical facilities - needs movable desks and bulletin boards instead of blackboards Instructor feels isolated - wishes to be part of a bilingual department with its own chairman, budget, and policy-making powers.
Hispano-Urban Scene (Grades 10, 11, and 12; started 1972)		No specific text; "Hubbard Scientific Urban System", (development of cities), "The Incidence and Effects of Poverty in the U.S.", Sociological Resources for the Social Studies (mini-units on problems)	One class, 20 students, Grades 10 to 12 Course covers development of cities, urban setting of the Spanish community, migrant people, crime, and education in the United States. Discuss books; play "ghetto" simulation game; field trips to Spanish agencies Publication of classroom student magazine - "The Echo"	Class participation Students reports, tests, attendance	Lack of time to develop this new course, to locate materials and resource people Need to identify a textbook for classroom use.

BILINGUAL EDUCATION PROGRAM, SOUTH DIVISION HIGH SCHOOL

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Bilingual Personal Economics (Semester 1; started 1971)		MPS Program; one semester	One class, 22 (four Spanish monolingual) students daily; teaches bilingually; all reading materials are English; group field trips for comparison shopping	Individual reports, class participation Students help parents shop and read contracts.	None
Bilingual Sociology (Semester 2; started 1971)		MPS Program; one semester	Course covers contemporary problems in the Spanish community (cultural differences and similarities, discrimination, role of government, rehabilitation, drugs, and truancy). Visit agencies		Parents need to become involved in educational and social problems dealing with unemployment, housing, and education.
Spanish for Spanish-Speaking (started 1970)		Beginning: "Selections from Readers' Digest" in Spanish. Scholastic magazines Pathescope Berlitz	Thirty students who have attended English schools and cannot read Spanish; first semester limited to conversation	Only conversation first semester to build vocabulary and use language. Vocabulary study-quizzes. Grades for improvement in oral work.	Lack of beginning reading materials at high school level
		Intermediate: "Vuelo", MacMillan; "Reading for Meaning"; Scholastic Magazine in Spanish	Twenty-two students; read stories, discuss current topics, study basic grammar and verb forms, write short compositions - correspondence, touches on Spanish-American history, literature, arts	Students write talks and answer questions about stories. Tests	

BILINGUAL EDUCATION PROGRAM, SOUTH DIVISION HIGH SCHOOL

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Spanish for Spanish-Speaking (started 1970) (Cont'd)		Advanced: "Conversación al Día", "La Civilización Española" (these are intermediate college level cultural readers) Readers Digest in Spanish; Spanish American Prose and stories from other advanced-level anthologies	Nine students, fluent in Spanish; work on their own in intermediate class; covers the history, arts, geography, language, and customs of Spain and Latin America. Discussions of current topics	Tests, compositions	
Bilingual Guidance (started 1971			Guidance services for any Latin student; includes referrals from bilingual student advisors, discipline problems, parent conferences; college orientation; speakers of different companies came to tell students about opportunities in certain fields	Paper work and sociology class interfere with guidance activities	Family Problems: 1. Economic - not enough money for food and clothing 2. Generation gap 3. Lack of jobs* 4. Students want more independence in dating and driving *Number 3 very important

LINCOLN JUNIOR-SENIOR HIGH SCHOOL

BILINGUAL EDUCATION PROGRAM, LINCOLN HIGH SCHOOL

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Bilingual Reading		"Developing Reading Skills", Levels A and B, Laidlaw; "Guidebook to Better English", Levels 1 and 2, Educational Guidelines; "SRA Reading Labs", Levels 2A and 3A; "Specific Skill Series", Barnell Loft, Ltd.; "Developing Reading Skills", A-D; "Guidebook to Better English", Levels 1 and 2; "Specific Skill Series", SRA Reading Labs, Levels 2A and 3A; Picto-Cabulary Series, Barnell Loft; "Mystery of Midnight Visitor", Field Educational Publisher	Individualized weekly program for each student according to needs; three classes, ten students each and one hour tutoring; teaches basic skills: phonics, word attack skills, grammar, word forms, vocabulary, and spelling; one beginning class; "Dr. Spello", second edition; "Chili Peppers", Field Educational Publisher worksheets; Merrill Diagnostic Reading, Level 5; Hayes English Drills and Tests; "Phonics", C. Merrill	California Achievement Test, Reading, Levels 3 and 4	Class of new arrivals meets for two hours per day and is too large. More 7th and 8th graders should be in the course. Bilingual Program should be expanded. Lack of relevant materials; no materials for the ten percent below third-grade level; the educationally-deficient and non-motivated need 1:1 help; aide needed in larger classes
Hispano-American History, Language, and Culture		"Latin America, Past, Present, and Future", Bailey and Cruz; "Latin America, Past, Present, and Future", Steinberg; Latin America geography through map work; "Mexican Americans, Past, Present, and Future", Nava; "Our Citizens from the Caribbean", C. Senior	There are 34 students in two classes, mostly Puerto Rican. They speak and read only English in class but understand Spanish and use it among selves and at home. Teaching is 65% English, 35% Spanish. Course covers overview of Latin America, individual countries, and Latins in the United States; much map work	Test every two weeks; questionnaires from the books	Few use Spanish texts as most students can't read Spanish. Students interested only in Puerto Rico and only in general information rather than in-depth study.

BILINGUAL EDUCATION PROGRAM, LINCOLN HIGH SCHOOL

SUBJECT	Group	MATERIALS	METHODS	EVALUATION	PROBLEMS
Bilingual United States History		"Lessons of American History", Abramovitz; "Promise of America", Cuban Roden, five volumes	Six students of whom two are newly-arrived from Mexico and four from Puerto Rico; requires individual help.	Teacher tests, questionnaires in books	Five newly-arrived students had only a fourth-grade education and are unable to do tenth-grade work. Pupils need bilingual skills. Most cannot read or write Spanish. Need for individual help makes class less challenging.